Letter RO-6 – Endangered Habitats League

RO-6-1 The comment provides introductory statements regarding Endangered Habitats League (EHL). The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-2 The comment refers to the comment letter submitted by EHL on the 2015 DEIR during the 2015 public review period, which identified "a series of deficiencies in the DEIR." The commenter states that this (2019) letter provides comments on the two recirculated chapters and technical appendices for Alternative H, and also "identifies additional deficiencies in the prior DEIR." In response, please see Response to Comment Letter O-6 for responses to comments submitted during the 2015 public review period. Also, as stated in the Recirculation Reader's Guide, released with the 2019 Recirculation Package, public comments should be limited to only the portions of the DEIR that have changed and are included as part of the recirculation.

RO-6-3 The comment provides an overview of topics discussed in their comment letter and concludes that the 2015 DEIR and 2019 Recirculation Package violate CEQA. The commenter provides general subject areas that they feel are inadequate; however, specific examples are not provided here. Therefore, no further response is provided; however, responses are provided below for specific issues raised throughout the comment letter.

RO-6-4 The commenter states that the environmental review document fails to fully and accurately inform decision makers, and the public, of the environmental consequences and does not satisfy the basic goals of either statute. In addition, the commenter states the DEIR has numerous and serious inadequacies; however, no examples of those inadequacies are provided. The commenter further states the County "must again revise and recirculate the DEIR," but does not specify what those revisions would entail. Since no specific examples are provided regarding inadequacies or revisions, no further response is provided.

RO-6-5 The comment states the proposed Project demonstrates a disregard for creating housing stock for lower income households and that the proposed Project provides no affordable housing. The comment further states approval of the proposed Project would conflict with the County General Plan and that the General Plan itself is legally inadequate. In response, the proposed Project's consistency with the County General Plan is analyzed in Section 3.3.5 in the 2015 DEIR. The 2015 DEIR found that the proposed Project (and its alternatives) would not conflict with any applicable land use plan, policy, guideline, or regulation. Related to SB 1000, this is a comment on the County's General Plan and not the environmental analysis for the proposed Project or Alternative H; therefore, no further response is required.

RO-6-6 The comment states the DEIR's analysis of and mitigation for the impacts of the proposed Project are inadequate. This comment also provides statements about the purpose of CEQA established by case law. In response, this comment does not raise a specific issue regarding the adequacy of the environmental analysis; it provides an introduction to following comments.

RO-6-7 The comment states that the biological resources impact analysis for Alternative H fails to determine exactly the extent and severity of significant impacts. The comment then states that

nowhere is the environmental impact of "destroying the K6 vernal pools" described. The comment further states that the document fails to explain the actual and specific consequences of developing Alternative H to sensitive wildlife species, and that no information on how populations will be impacted is provided. The impact to vernal pools on the K6 mesa is stated on page 14 of Section 2 of the SEIR. There is no hard boundary on the K6 mesa so the impacts within that named location cannot be identified. However, the impacts overall in the proposed development are reported. Because there are vernal pools on the mesa, the acreage of the pools is reported. Figure 3 of the Biological Resources Technical Report Supplemental Analysis (Appendix D-3) identifies the location of the mesa but, again, there is not a defined boundary within which acreage can be quantified. Much of the mesa is grassland and the vernal pools are illustrated. Quantifying impacts based on the property is the standard for addressing impacts. In response to the comment regarding how the special-status species in Table 8 of the Biological Resources Technical Report Supplemental Analysis (Appendix D-3) are impacted, the assumption with any development project is that the species will no longer be present within the development footprint. While the special-status species may not be directly killed, their habitat will no longer be present and thus they will no longer live within the development boundary. The populations will be affected by loss of habitat; where there were documented locations, that number is reported. In other cases, the species may not have been observed; thus it is assumed to be impacted if its habitat is impacted. Mitigation is typically provided based on acres of habitat, which is standard for the MSCP.

RO-6-8 The comment states the 2019 Recirculation Package fails to adequately describe the proposed Project's biological resources on the Project site. Specific examples are not provided here. Therefore, no further response is provided; however, responses are provided below for specific biological resource issues raised throughout the comment letter.

RO-6-9 The comment refers to a report prepared by Hamilton Biological, which is included as an exhibit to the comment letters. The comment states the 2019 Recirculation Package fails to discuss the importance of the Quino checkerspot butterfly critical habitat to the survival and recovery of this species. In response, the 2019 Recirculation Package has provided the acres of existing critical habitat onsite and quantifies the impact of Alternative H to critical habitat (Table 8 of the Biological Resources Technical Report Supplemental Analysis [2019]). A determination of "destruction or adverse modification" of designated critical habitat, as defined under the federal Endangered Species Act, is made by the USFWS in their Biological Opinions for Section 7 consultations. As such, it is a determination under federal law, not CEQA. Thus, it is not included in the SEIR.

RO-6-10 The comment states the 2019 Recirculation Package fails to adequately identify occupied Quino checkerspot butterfly habitat. The comment further states that, based on USFWS delineation of occupied habitat, all suitable habitat on the Project site constitutes occupied habitat. In response, the County concurs that all suitable habitat of the Quino checkerspot butterfly constitutes occupied habitat. The DEIR explains that regardless of whether butterflies were observed, due to

the proximity of an observation, all suitable habitat was considered occupied and included in the requirement for mitigation. Using the description "potential" in no way lessens the value or importance of the habitat for Quino checkerspot butterfly but merely accurately describes the factual description of the observations during the numerous surveys.

RO-6-11 The comment states the 2019 Recirculation Package's approach to evaluating Quino checkerspot butterfly impacts is invalid. The comment states that the Otay Ranch GDP/SRP Programmatic EIR (PEIR) contains explicit mitigation requirements for impacts to Quino checkerspot butterfly and requires 100 percent of occupied habitat to be preserved. In response, the County acknowledge that the language regarding 100 percent preservation is included in the Otay Ranch GDP/SRP. However the Otay Ranch GDP/SRP also states that the criteria for Quino checkerspot butterfly could be approved to HCP/MSCP standards. Additionally, the applicant must receive take authorization for impacts to the species which is included as a mitigation measure (M-BI-9a). Provided this meets agency approval, the mitigation outlined in the SEIR is consistent with the PEIR because it would be consistent with the take authorization.

The County had interpreted the preservation criteria to refer to the populations at the time of the approval of the Otay Ranch GDP/SRP (1993). Regardless, the intention of the County is to include preserve areas as mitigation, provide mitigation for indirect impacts, and include management, monitoring, and restoration as outlined in the required Quino Checkerspot Management/Enhancement Plan. The County has been working with the Wildlife Agencies related to a regional Quino checkerspot butterfly strategy and conservation thresholds, regardless of the type of permit that is ultimately issued for the take of the species to attain the requirements of the MSCP or an HCP. The proposed Project would comply with the mitigation measures of the Otay Ranch GDP/SRP.

RO-6-12 The comment states that CEQA forbids deleting or modifying previously adopted mitigation measures without showing it is infeasible, and therefore the 2019 Recirculation Package's proposed approach is illegal. The comment references various case law and concludes the 2019 Recirculation Package makes no attempt to demonstrate why it would be infeasible to preserve the occupied Quino checkerspot butterfly habitat. The 2019 Recirculation Package includes a table of the compliance of Alternative H with the 1993 Otay Ranch GDP/SRP Program EIR (Appendix D-24). The required measure for Quino checkerspot butterfly is that "One hundred percent (or approved HCP/MSCP standards) of occupied habitat for this species shall be preserved." In response, the County adds that the Otay Ranch GDP/SRP also states that in the alternative, avoidance could be approved to HCP/MSCP standards. Additionally, the applicant must receive take authorization for impacts to the species which is included as a mitigation measure (M-BI-9a). Provided this meets agency approval, the mitigation is consistent with the PEIR because it would be consistent with the take authorization.

This measure is applicable to Alternative H and the alternative complies through project-level mitigation. The discussion for this species is as follows: "Preservation for this species will follow resource agency recommendations per take permit in accordance with Section 7, Section 10, or the Quino Checkerspot Butterfly Addition." Thus, the mitigation for the Quino checkerspot butterfly will comply with the Program EIR by mitigating in accordance with an approved

HCP/MSCP standards as directed during the Section 7 process. For additional information, refer to Biological Resources Technical Report Supplemental Analysis for Alternative H (Appendix D-3).

RO-6-13 The comment states the 2019 Recirculation Package's mitigation for impacts to Quino checkerspot butterfly is deficient. The comment refers to various case law and states the lead agency must adopt all feasible mitigation measures that can substantially lessen the proposed Project's significant impacts. In response, as presented in Chapter 4.0 of the 2019 Recirculation Package, the mitigation measures include the proposed preserve and Conserved Open Space areas for a total of 1,177 acres for the direct impacts to occupied habitat as required by mitigation measures M-BI-1a and M-BI-17. The Preserve design includes areas where Quino checkerspot butterfly has been observed during multiple surveys and areas adjacent to other suitable and likely occupied habitat where there are well-documented features included such as nectar source, ridgelines, hilltops and host plant populations. There will be management of the preserve by the POM, the management of the Conserved Open Space by either the POM or other qualified manager, and the implementation of the Quino Checkerspot Butterfly Management/Enhancement Plan. The Plan will include survey methods, monitoring, contingency, and adaptive management. The Plan will be reviewed and approved by the County and Wildlife Agencies prior to the implementation of the proposed Project. Mitigation measure M-BI-9a addresses the required take authorization for the impacts on Quino checkerspot butterfly. Mitigation measure M-BI-9b requires the preparation of a Quino Checkerspot Butterfly Management/Enhancement Plan that supplements the tasks required of the POM and includes developing a survey methodology, outlines the requirements for the restoration and enhancement, and includes adaptive management strategies and well as draft costs for the management.

The QCB Management/Enhancement Plan, including the performance criteria set forth below, was prepared to comply with and further the recovery goals described in the Quino Checkerspot Butterfly Recovery Plan (2003) and 5-Year Review (2009) issued by the United States Fish and Wildlife Service. The QCB Management Plan may be superseded or rendered unnecessary upon completion and adoption of the County of San Diego Quino Checkerspot Butterfly MSCP Addition.

The plan will include recovery measures with performance standards that may include but are not limited to:

- Annual restoration and enhancement of 15 acres per year with quantitative and qualitative requirements that outline the percent native cover, percent survival, and percent nonnative cover as well as reviewing the health and vigor of the host plants;
- Quantifiable adaptive management triggers that rely on yearly as needed population monitoring and statistical changes in the population size to then require restoration as noted above;
- Reintroduction of the species and continued restoration of unoccupied areas when population declines are not noted;
- Establishment of a permanent funding mechanism to work in concert with the funding

requirements of Preserve lands conveyed to the POM.

- Monitoring and management requirements to ensure the project results in no change in hydrological conditions, including moisture gradients, that would adversely affect Quino checkerspot butterfly habitat in the Preserve.
- Monitoring and management of all plantings to ensure no non-native insects are introduced into the Preserve where they might adversely affect Quino checkerspot butterfly habitat.

More specifically, the following are goals that are contained within the Quino Checkerspot Butterfly Management/Enhancement Plan:

- Maintain the existing quality and quantity of occupied and unoccupied Quino checkerspot butterfly habitats.
- Enhance additional vegetation communities suitable for Quino checkerspot butterfly occupancy through habitat restoration.
- These goals include the following quantitative performance standards:

	% Native Plant Cover			% Maximum Non-native Plant Cover	% Container Plant Survival
Year	*Coastal Sage Scrub*	*Chaparral*	*Grassland*	*All Restoration Areas*	*All Restoration Areas*
Year 1	20	10	30	10	95
Year 2	40	20	50	10	90
Year 3	55	40	60	10	85
Year 4	70	60	70	5	85
Year 5	80	70	80	5	85

- Maintain viable populations of Quino checkerspot butterfly on site which will in turn expand viable and interconnected Quino local subpopulations and ultimately restore and establish connections between regional Quino populations. Preserve suitable habitat and known locations of Quino checkerspot butterfly on site
- Maintain connectivity along key habitat linkages within the property
- Minimize project impacts to Quino checkerspot butterfly and their suitable habitat.
- Fund the management of the Preserve for the benefit of the Quino checkerspot butterfly (along with other special status species and sensitive habitats)
- Restore/enhance Quino checkerspot butterfly habitat where necessary; and
- Monitor areas currently occupied by butterflies or that are occupied by host plant and nectar sources.

- In addition to the goals outlined above, the following are triggers determined from the monitoring of the population that also provide a performance standard:
  - **Trigger 1: Significant Declining Occupancy Trend.** A logistic regression of the presence-absence data over a six year period will be analyzed. The analysis should be performed across the Resort Village Preserve. If statistically fewer sites are occupied than in the past, then the distribution of the sites should be considered to determine whether dispersal, habitat quality,

or weather conditions are likely to be explanatory. These can be investigated by using appropriate dependent variables to test each explanation (e.g., distance to nearest patch, vegetation variables, and rainfall). If declines are uniform across the Resort Village Preserve, and can be attributable to low rainfall, then no action is triggered. If vegetation variables are explanatory, then active management actions will occur where Quino checkerspot butterfly have been extirpated. If dispersal seems to be the key, (i.e., sites with extirpation are statistically more distant from other sites), then analyze using Trigger 2.

Trigger 2: Site Extirpation. If a site has experienced a population extirpation without butterflies returning for three years during which the population size at sentinel sites was equal to or greater than the mean population size (e.g., three "good" years), then one of two actions will be considered for the site:

- If the percent cover of larval host plants and nectar sources at the site have diminished since the site was last occupied, then the Active Management Program will focus on restoration at the site.
- If habitat quality does not appear to be the cause of extirpation, then the POM will initiate other actions, such as performing additional research studies or reintroducing the species through translocation of wild or captive stock, in coordination with the Wildlife Agencies.

- **Trigger 3: Stability in Occupied Sites.** When occupancy remains constant through time (i.e., three sampling periods or longer), this shows that populations appear stable. In this situation, the Active Management Program will focus on restoration or creation of Quino checkerspot butterfly habitat in unoccupied areas. In this manner, available resources will be directed to creation of new habitat only when declines in existing habitat have been addressed.

The Plan is required to be reviewed and approved by the County and Wildlife Agencies prior to approval and thus some revisions can be anticipated. The indirect impacts are addressed with mitigation measures and the preparation of an Edge Plan. The Preserve Edge Plan was required by the Otay Ranch GDP/SRP and included as a mitigation measure in the PEIR for the Otay Ranch GDP/SRP. Moreover, implementation of components of the Preserve Edge Plan is a required element of several mitigation measures designed to avoid and minimize adverse edge effects, including DEIR mitigation measures M-BI-1f (Fencing and Signage), M-BI-13 (Stormwater Pollution Prevention Plan), M-BI-14 (cover of stockpiles, no toxic chemicals, no invasive plant species, no drainage into the preserve, slope stabilization is implemented, noise is minimized, and no lighting of the preserve is allowed).

RO-6-14 The comment refers to mitigation measure M-BI-9a regarding take authorization, and states that the Endangered Species Act Section 7 or 10 consultation should have been conducted prior to release of the DEIR or 2019 Recirculation Package. The comment also states a Habitat Conservation Plan, required under Section 10, should have been included in the 2019

Recirculation Package. In response, neither the federal Endangered Species Act nor CEQA requires that consultation under Section 7 or 10 occur prior to release of the Draft EIR. In fact, it would be impractical to sequence the two processes in this way, since the Section 7 (or Section 10) consultation requires that the project in question be relatively fixed in terms of its configuration and impacts. Such certainty is not possible at the Draft EIR stage of the CEQA process, and it would be legally prejudicial for the ESA consultation process to assume the lead agency (here, the County) will approve the proposed project without modification or approve it all. It would also assume that the County would not consider the alternatives discussed in the Draft EIR, which would be a violation of CEQA. In this case, the project applicant will be seeking federal wetlands permits from the U.S. Army Corps of Engineers (Army Corps), a process which, under Section 7 (or 10), requires the Army Corps to consult with U.S. Fish and Wildlife Service (USFWS) regarding the proposed project's impacts on listed species and designated critical habitat. At the end of that process, USFWS will prepare a Biological Opinion regarding those impacts and whether they would result in jeopardy to any listed species. The Biological Opinion will also identify reasonable and prudent measures that must be implemented in order to avoid such jeopardy. The Army Corps must then include those measures as conditions of approval in any permit the Army Corps issues to the project applicant. As shown, this entire consultation process takes place under federal law and not under CEQA. The only connection is that CEQA requires the applicant to comply with whatever conditions the federal agencies impose as part of the incidental take authorization secured under Section 7 or 10. Here, the County has included that requirement among the biological mitigation measures for the project. The project applicant is currently preparing its application to the Army Corps for federal wetland permits. This process, however, cannot be completed until the CEQA document is certified. Thus, it is not included in the 2019 Recirculation Package.

RO-6-15 The comment states the 2019 Recirculation Package improperly presumes the outcome of the Section 7 or 10 consultation process will be preserving other Quino checkerspot butterfly habitat through a biological open space easement. The comment further states the U.S. Fish and Wildlife Service could require mitigation other than the easement. In response, the County disagrees that mitigation measure M-BI-9a presumes an outcome from the Section 7 or 10 consultation process. This mitigation measure states the following: "If the project receives take authorization through the federal Endangered Species Act (FESA) Section 7 or Section 10 processes, the Project applicants will comply with any and all conditions, including preconstruction surveys that the USFWS may require for take of QCB pursuant to FESA." However, the County understands that there may be revisions of the proposed Project or the mitigation during the permitting process, which could modify the mitigation requirements. Mitigation measure M-BI-9a does not presume any final decision of the consultation process but provides a conservation easement mechanism for what is proposed as part of Alternative H at this time.

RO-6-16 The comment states the 2019 Recirculation Package inappropriately defers the identification of mitigation. The comment refers to mitigation measure M-BI-9b, which requires the Project applicant to prepare a Quino Checkerspot Butterfly Management/Enhancement Plan. In response, a draft of the Management/Enhancement Plan has been included in the recirculated Biological Resources Technical Report Supplemental Analysis – Alternative H (Appendix D-3); please refer to Appendix C in the Supplemental Analysis as well as the response to RO-6-13. The draft plan

includes success criteria for the restoration and triggers and actions for adaptive management actions. The Plan, including the costs, is required to be reviewed and approved by the County and Wildlife Agencies prior to approval and thus some revisions can be anticipated. Mitigation measure M-BI-9b states the Management/Enhancement Plan must be approved by the County and the Wildlife Agencies.

RO-6-17 The comment states the 2019 Recirculation Package fails to identify performance standards for the Quino Checkerspot Butterfly Management/Enhancement Plan. The comment further states that Appendix C identifies some performance standards, but it does not appear that the criteria have been adopted by the 2019 Recirculation Package itself or whether standards could be changed in the future. In response, the Management/Enhancement Plan shall, at a minimum, include a survey methodology for onsite preserve areas pre- and post-construction to monitor effects on Quino checkerspot butterfly population health. In addition, Section 2.1.4 of Appendix C includes performance criteria for the restoration and enhancement for the improvement of the Quino checkerspot habitat within the preserve. This Management/Enhancement Plan will be submitted to, and be to the satisfaction of, both the Directors of Planning & Development Services, Parks & Recreation, USFWS, CDFW, and the POM. Thus, the Plan, as included in draft form in the 2019 Recirculation Package, will be reviewed and likely revised in accordance with more recent information and per the requirements of the reviewing entities. Currently, the plan includes success criteria for the restoration and triggers and actions for adaptive management actions. The Plan is required to be reviewed and approved by the County and Wildlife Agencies prior to approval and thus some revisions can be anticipated. The draft plan includes performance measures that may include but are not limited to restoration and enhancement requirements that outline the percent native cover, percent survival, and percent nonnative cover; quantifiable adaptive management triggers that rely on population monitoring and statistical changes in the population size to then require restoration as noted above or reintroduction of the species and continued restoration of unoccupied areas when population declines are not noted. Further, Chapter 4.0 of the 2019 Recirculation Package includes mitigation measure M-BI-9b, which requires the preparation of the Management/Enhancement Plan. Thus, the performance standards are included as part of the FEIR and will be required to be implemented.

RO-6-18 The comment states that there is no explanation of the connection between mitigation M-BI-17 and the proposed Project's impact on Quino checkerspot butterfly. In response, the DEIR, Section 2.3 describes that all of the impacts to suitable habitat are assumed occupied by the species and, similarly, all of the proposed RMP Preserve and Conserved Open Space areas are assumed occupied by the species. The RMP Preserve and the Conserved Open Space provide suitable preserve areas for the Quino checkerspot butterfly due to features such as suitable topography, soils, host plant, nectar sources, and documented observation of the species. Importantly, the conserved open space will be preserved on site and shall be (a) added to the Otay Ranch RMP Preserve, and conveyed to the POM, or (b) managed under a County of San Diego (County) approved site-specific Resource Management Plan (RMP) through a County biological open space easement. The conserved open space will be monitored in accordance with the RMP. Thus these areas provide additional Quino checkerspot butterfly occupied habitat.

RO-6-19 The comment discusses the lack of surveys for western spadefoot. The comment then states that without thorough surveys, there is no way of determining the severity or extent of the proposed Project's impacts on this species. There is no county or wildlife agency standard for conducting surveys for this species; thus there is no legal standard. In response, the fairy shrimp and vernal pool inundations surveys were also timed appropriately to detect western spadefoot and observations were made of the species within the K8 vernal pools as shown in Figure 6 of Appendix D-3. Numerous surveys of the K6 vernal pool complex documented that the pools did not hold water even when other pools were documented to be inundated. The K8 vernal pools do become inundated and are suitable for breeding of western spadefoot, which was confirmed during surveys as noted above. These pools will be preserved in perpetuity and conveyed to the POM or managed in the long term under a site-specific resource management plan. The County Guidelines for Determining Significance for Biological Resources includes this language for determining significance for a Group II animal species which includes western spadefoot: "The project would impact the local long-term survival of a County List C or D plant species or a County Group II animal species." Given the small area within which there is habitat that is suitable for the species (the K8 vernal pools) and the fact that the pools will be preserved, no impact is anticipated. Additionally, this analysis for Group II animal species is based on the following: "The term "local" in significance guidelines is defined by the boundaries of the County's multiple species conservation plans. For species in southern San Diego county, "local" is the area covered by the South County Subarea Plan. . . . should be considered the "local" area used for analyzing impacts and significance." Thus the analysis is based on the population within the South County Subarea Plan and not on an individual site.

RO-6-20 The comment states the preservation of 0.26-acre pool complex at the K-8 mesa would not address impacts to western spadefoot that would occur outside of the pool. In response, the Conserved Open Space area that includes the K8 mesa is a total of 12.5 acres, as well as any other areas within the Preserve that contain suitable spadefoot habitat, which includes the watershed of the vernal pools and a buffer. Thus, western spadefoot will have the basin for breeding as well as upland habitat for aestivating with a size of approximately 1,000 feet by 800 feet. There will be fencing and management of the area in perpetuity.

RO-6-21 The comment states the DEIR fails to adequately analyze or mitigate impacts to the golden eagle. The comment also states that the DEIR incorrectly concludes that direct impact to 556 acres of foraging habitat would less than significant. Please see Global Response 2: Golden Eagle.

RO-6-22 The comment states the Draft EIR does not address the cumulative loss of habitat on the Cedar Canyon eagles. Please see Global Response 2: Golden Eagle.

RO-6-23 The comment states the 2019 Recirculation Package fails to avoid or adequately mitigate for impacts to vernal pools and San Diego fairy shrimp. The comment further states the significant impact to K6 pools could be avoided by redesigning the proposed Project, but Alternative H fails to take this approach. In response, the County MSCP Subarea Plan included the K6 vernal pools area within the development footprint, which was established in 1993. As discussed in Section 1 of Appendix D-3, multiple years of surveys indicate that the K6 pools no longer become inundated. These surveys for inundation and San Diego and Riverside fairy shrimp were

conducted in 1999, 2000, 2003, 2007–2008, and 2014–2015. Regardless, Appendix D-3 discusses that impacts are considered significant, and mitigation is provided for the pools as well as the one pool within the K6 mesa that was determined to be occupied by San Diego fairy shrimp (measures M-BI-7 and M-BI-10).

RO-6-24 The comment states the EIR must explain how the proposed Project, including Alternative H, is consistent with the 1998 Recovery Plan for Vernal Pools of Southern California. It should be noted that recovery plans are guidance documents and do not dictate where or if impacts can occur in a certain area or where or if take authorization can be given in an area by the USFWS. In response, the 1998 Recovery Plan states "The goal of this plan is to conserve and enhance southern California vernal pool ecosystems, with specific emphasis on stabilizing and protecting existing populations of *Eryngium aristulatum* var. *parishii, Pogogyne abramsii, Pogogyne nudiuscula, Orcuttia californica,* and San Diego and Riverside fairy shrimp so that these species may be reclassified from endangered to threatened status. The goal of this plan for *Navarretia fossalis,* currently proposed for listing as threatened, is to ensure the long-term conservation of this species." The criteria for recovery include the preservation of existing vernal pools that contain these species or have the requisite Stockpen soils (which are not present within the Project site) or are in particular locations that are identified in the Recovery Plan. The Recovery Plan refers to lists of pools that should be preserved in Tables 4 and 5 of the plan; however, the tables are not included in the plan itself. If it is assumed that the K6 Mesa vernal pools are listed in one of the tables, the criteria indicate that research tasks should be conducted to determine the viability and function of the pools and utility of the preservation. The requisite study of the Otay Ranch vernal pools was conducted and recommendations outlined in the report (Dudek & Associates 1992 "*Report on the Flora of the Otay Ranch Vernal Pools, 1990-1991*"). The K6 vernal pools, which would be impacted by Alternative H, were concluded as suitable to preserve for two reasons: (1) Presence of little mousetail and (2) Functioning mima mound topography. Since that publication, multiple surveys have been conducted of the K6 pools, and it has been concluded that little mousetail is no longer present and the pools no longer become inundated. Of the species included in the Recovery Plan, only the San Diego fairy shrimp is assumed present in one of the pools (based on dry season survey).

The Recovery Plan also describes the MSCP conservation and relationship with the MSCP. The K6 mesa was not included in the MSCP preserve boundary. The Recovery Plan notes that "All subarea plans within the MSCP will require conservation of vernal pool habitat to ensure no net loss of acreage and habitat functions and values and will require avoidance of impacts to vernal pools to the maximum extent practicable both inside and outside the preserve planning area. Impacts that cannot be avoided should be minimized and mitigated." Alternative H provides for mitigation of the vernal pools within the onsite K8 mesa. Mitigation measure M-BI-7 outlines the requirement for the preparation of a vernal pool mitigation plan that will be prepared to the satisfaction of the County and USFWS. The draft plan is included in this EIR (see Appendix B to Appendix D-3) and will be revised based on comment from the County and USFWS and during the permitting process.

RO-6-25 The comment states the 2019 Recirculation Package lacks evidentiary support that Alternative H's impacts on vernal pools and San Diego fairy shrimp would be mitigated to less than significant. The comment further states mitigation measure M-BI-7 gives two options for

mitigation, both of which are inadequate. In response, the option of restoration has been documented to provide high quality and functional enhancement and creation of pools within suitable soils. Such success has been documented at Mission Trails Regional Park ((http://www.sercal.org/the-latest/2017/9/30/active-and-passive-vernal-pool-restoration-processes-in-an-urban-park), Cal Terraces ((https://sdmmp.com/upload/SDMMP_Repository/0/p2yb0943vmkz6gjh18nsq5cdtwx7rf.pdf), Manzanita Partners ((https://www.carlsbadca.gov/civicax/filebank/blobdload.aspx?BlobID=35458), and Sweetwater Reservoir (https://sdmmp.com/upload/SDMMP_Repository/0/p2yb0943vmkz6gjh18nsq5cdtwx7rf.pdf). As stated in the mitigation measure, the draft Conceptual Vernal Pool Mitigation Plan will outline the location and activities of the restoration, will provide for full no net loss of vernal pool acreage and watershed, and will enhance the existing pools. The Plan will be prepared to the satisfaction of the County and USFWS. In regard to the second option, if a qualified mitigation bank becomes available, the permitting agencies may consider that to be a preferable option since the mitigation is documented to be completed.

RO-6-26 The comment states the 2019 Recirculation Package provides no evidence that mitigation measure M-BI-7 would actually be effective. The comment also references a federal court case and then concludes the DEIR cannot rely on mitigation that USFWS has identified as futile. In response, in more recent years, a number of restoration activities have been documented to be successful within San Diego County, and the Wildlife Agencies have concurred as to the success of these restoration efforts. These efforts include locations such as Manzanita Partners in Carlsbad, Fry's vernal pools in San Marcos, and Mission Trails Regional Park pools in San Diego. These examples resulted in functional pools that hold water, are occupied by special-status plants, and are occupied by San Diego fairy shrimp. The restoration plan for the K8 complex will be reviewed by the County, Wildlife Agencies, and wetland permitting agencies prior to approval.

RO-6-27 The comment states that mitigation measure M-BI-7 is inadequate because it improperly defers identification of mitigation until a later date. In response, while the performance criteria were not specifically outlined in Chapter 4.0 of the 2019 Recirculation Package itself, mitigation measure M-BI-7 specifically requires the preparation and implementation of the Conceptual Vernal Pool Mitigation Plan. Thus, the performance standards are included by reference (Section 6.1 of the Conceptual Vernal Pool Mitigation Plan) and will be required to be implemented as part of mitigation measure M-BI-7. Mitigation measure M-BI-7 states "The plan will be submitted to and be to the satisfaction of, both the Directors of Planning & Development Services, Parks and Recreation, and USFWS. A ratio of at least 1:1 restoration shall include the establishment of new vernal pool basins within the K8 vernal pool group." Thus, the Plan, as attached and fully incorporated as a draft document in the 2019 Recirculation Package (see Appendix D-3), will be reviewed and likely revised in accordance with more recent information and per the requirements of the reviewing entities. Success criteria are included in the draft plan and, if needed to be more detailed or revised, will be included in the final Vernal Pool Mitigation Plan.

RO-6-28 The comment states Option 2 of mitigation measure B-1-7 is also inadequate. The comment further states the 2019 Recirculation Package fails to identify where mitigation bank pools would be located and what species currently exist in those pools. In response, mitigation banks are not and do not need to be identified at this time. Option 2 of mitigation measure M-BI-7 will be used based on the acceptability of the mitigation bank, if one exists, and will be fully vetted or approved during the permitting process. Currently, no mitigation bank is available within this mitigation service area;; however, in the future there could be a suitable bank. The use of a bank for the proposed Project will be required to be fully reviewed by the permitting agencies.

RO-6-29 The comment states the 2019 Recirculation Package fails to identify adequate mitigation for impacts to San Diego fairy shrimp. In response, mitigation for impacts to the one pool that contained one cyst of a fairy shrimp assumed to be San Diego fairy shrimp will be implemented with the restoration of the pools in the K8 mesa and in accordance with the permitting for the take of the species. Mitigation measure M-BIO-10 states the following: "Prior to the issuance of the first grading permit that impacts the K6 vernal pool complex, the Project applicants shall demonstrate to the satisfaction of the Director of Planning and Development Services (or his/her designee) that the Project has secured take authorization of San Diego fairy shrimp through Section 7 Consultation, a Section 10 incidental take permit, or as may be incorporated into the provisions of the MSCP Subarea Plan Quino Checkerspot Butterfly Addition to achieve the best results toward the survival and recovery of the species." Per the mitigation measure M-BI-9a, "If the project receives take authorization through the federal Endangered Species Act (FESA) Section 7 or Section 10 processes, the Project applicants will comply with any and all conditions, including preconstruction surveys that the USFWS may require for take of QCB pursuant to FESA."

RO-6-30 The comment states it is unclear how an addition to the MSCP related to Quino checkerspot butterfly is relevant to mitigation for impacts to San Diego fairy shrimp. The comment further states Section 7 or 10 consultation should have been conducted prior to release of the DEIR or the 2019 Recirculation Package. In response, the addition to the MSCP related to the Quino checkerspot butterfly was a suggested take authorization that was proposed by the USFWS. Take for San Diego fairy shrimp was suggested to be folded into the amendment for the Quino checkerspot butterfly. Consultation with the wetland regulatory agencies typically occurs simultaneously with the certification of the FEIR or upon approval in order to have the most current impact information for the agencies. There is no authority to require that consultation or a Draft habitat conservation plan occurs before circulation of a Draft EIR. Case law allows for take consolation to occur after project approval (208 Cal App 4th 899, 172 Cal App 4th 603, 131 Cal App 4th 777, and 119 Cal App 4th 1261).

RO-6-31 The comment states the 2019 Recirculation Package fails to avoid or adequately mitigate for impacts to nesting migratory birds, including the burrowing owl. In response, the 2015 DEIR acknowledges the potential impact to burrowing owl even though the species has not been recorded onsite with recent surveys, including the 2016 Quino Checkerspot Butterfly survey that covered the entire site. The burrowing owl was recorded in 2000 (one individual) and not observed since then. Because of the concern for potential occurrence of the burrowing owl, mitigation measure M-BI-16 is included in the 2019 Recirculation Package, which states the following: "Prior to issuance of any land development permits, including clearing, grubbing, and

grading permits, the applicant or its designee shall retain a County of San Diego (County)-approved biologist to conduct focused preconstruction surveys for burrowing owl during breeding or non-breeding season. The surveys shall be performed no earlier than 7 days prior to the commencement of any clearing, grubbing, or grading activities and will be repeated if there is a lapse of construction activity longer than 7 days. If occupied burrows are detected, the County-approved biologist shall prepare a plan that is consistent with the County of San Diego *Strategy for Mitigating Impacts to Burrowing Owls in the Unincorporated County*. This strategy states that burrowing owls must be relocated out of the impact area using passive or active methodologies subject to review and approval by the Wildlife Agencies (i.e., California Department of Fish and Wildlife and U.S. Fish and Wildlife Service) and the County. The plan includes burrowing owl relocation plans to avoid impacts from construction-related activities and may include construction of artificial burrows." The plan will be prepared in coordination with the Wildlife Agencies and County and will include the most current scientific information available.

RO-6-32 This comment states that mitigation measures M-BI-11 and M-BI-16 do not meet legal muster under CEQA. In response, the Wildlife Agencies and the County have reviewed the requirements and plan for the nesting bird surveys and for addressing burrowing owls. Mitigation measures M-BI-11, 15, and 16 address pre-construction surveys for special-status species and migratory birds. A mitigation plan will be prepared if nesting birds are observed per M-BI-11; indirect impacts on California gnatcatcher and nesting birds including raptors are addressed per M-BI-16; and potential impacts on burrowing owl are addressed per M-BI-16 as discussed in RO-6-31.

RO-6-33 The comment states the 2019 Recirculation Package provides no explanation why a mitigation plan that applies if birds are encountered cannot be developed now. The comment also states the measures do not provide performance standards for the future mitigation. Pre-construction surveys such as those required by M-BI-11 and M-BI-16 are required depending on the timing of the impact and the results of the pre-construction surveys. If construction takes place outside of the breeding season or surveys are negative for breeding birds or burrowing owl, no plan is required. If nesting birds or burrowing owl is detected, then, per the mitigation measures, the following will be implemented for each specific measure. For M-BI-11, the requirement is: "If nesting birds are detected, a letter report if results are negative or mitigation plan if results are positive, as deemed appropriate by the County of San Diego, shall be prepared and include proposed measures to be implemented to ensure that disturbance of breeding activities are avoided. The report or mitigation plan shall be submitted to the County of San Diego for review and approval and implemented to the satisfaction of the Director of Planning and Development Services (or his/her designee)." For M-BI-16, the requirement is: "If occupied burrows are detected, the County-approved biologist shall prepare a plan that is consistent with the County of San Diego *Strategy for Mitigating Impacts to Burrowing Owls in the Unincorporated County*. This strategy states that burrowing owls must be relocated out of the impact area using passive or active methodologies subject to review and approval by the Wildlife Agencies (i.e., California Department of Fish and Wildlife and U.S. Fish and Wildlife Service) and the County." Performance standards will be included if necessary and as required by the County and Wildlife Agencies thus ensuring that mitigation is adequate. If required, the content of the County of San Diego Strategy for mitigating for impacts to burrowing owl would identify impacts, habitat,

mitigation strategies, and success criteria based on the pre-construction survey results. Because the exact content of the plan cannot be known until such time that the preconstruction survey has been completed, the burrowing owl plan is not provided at this time and does not constitute deferred mitigation.

RO-6-34 The comment states the 2019 Recirculation Package fails to identify any mitigation for the loss of a large amount of burrowing owl habitat on the site. The comment further states the 2019 Recirculation Package should include mitigation required by the MSCP for burrowing owl and that the K6 area should be preserved. In response, burrowing owl has not been observed onsite for a number of years (last detected in 2000) in spite of the surveys that have been conducted on the site that would have detected owls, including rare plant surveys and Quino checkerspot surveys. A pre-construction survey will be conducted per the mitigation measure. The mitigation for all MSCP species, including burrowing owl, in Otay Ranch is mitigated through preserve conveyance.

RO-6-35 The comment states the 2019 Recirculation Package lacks an adequate analysis of and mitigation for the proposed Project's climate change impacts. The comment cites to federal and state case law addressing the subject of global climate change and cumulative impact analysis under CEQA. The comment does not identify any specific deficiency with respect to the analysis presented in the 2019 Recirculation Package; therefore, no further response is required.

RO-6-36 The comment states that "sprawling, auto-based development projects such as the Village 13 Project" are "sabotaging efforts to achieve the state's climate change goals," and references various sources regarding the percentage contribution of transportation to the national GHG emissions inventory. The comment also cites statements made by SANDAG's executive director regarding the importance of VMT reduction in a non-Project-specific setting. The comment does not identify any specific deficiency with respect to the analysis presented in the 2019 Recirculation Package. More specifically, the comment does not identify any defined issue with respect to Section 2.10, Global Climate Change, and its assessment of the proposed Project's potential to conflict with statewide goals for the reduction of GHG emissions, or Project consistency with SANDAG's RTP/SCS. Therefore, no further response is required.

RO-6-37 The comment summarizes the significance conclusions rendered in Section 2.10, Global Climate Change, of the 2019 Recirculation Package and identifies four claimed deficiencies in that analysis. As the comment serves as an introduction to comments that follow, please see Response to Comment RO-6-38 through Response to Comment RO-6-65.

RO-6-38 The comment states that Section 2.10, Global Climate Change, of the 2019 Recirculation Package fails to estimate GHG emissions from explosive detonation and, therefore, underestimates proposed Project emissions. Using modeling inputs based on The Climate Registry emission factor and the 24 tons of ANFO (ammonium nitrate/fuel oil) assumed per blast (as stated in Section 2.2 of the 2015 DEIR), it was determined that GHG emissions would be 4.02 MT CO_2 per blast. Carried out across an estimated 125 days of blasting with one blast per day would result in roughly 503 MT CO_2 from blasting related to proposed Project construction.

Section 2.2 of the 2015 DEIR and Section 2.10 of the 2019 Recirculation Package, as well as the Global Climate Change Evaluation (Appendix C-2) have been updated to include this information. In addition, a new blasting memo has been included in this FEIR as Appendix C-24. However, these revisions do not constitute "significant new information" triggering recirculation under CEQA Section 15088.5. The quantity of blasting-related GHG emissions is equal to less than 1.5 percent of the total construction-related GHG emissions for the proposed Project and does not result in a new significant impact or substantial increase in severity of a previously identified significant impact. Further, all construction-related GHG emissions would be reduced to net zero through the implementation of mitigation measure M-GCC-7.

RO-6-39 The comment states that the operational emissions inventory data presented in Section 2.10, Global Climate Change, of the 2019 Recirculation Package was erroneously calculated using an "urban" setting in the California Emissions Estimator Model (CalEEMod) because the proposed Project "is clearly in a rural location." The comment states that use of the "rural" setting would increase emissions. The County understands that the selection of the urban or rural input in CalEEMod affects the default vehicle trip length applied by the model. Here, it is appropriate to use the urban setting in CalEEMod because the proposed Project is part of the entire Otay Ranch development, which provides a mix of uses in a developed area. Nevertheless, the operational emissions presented in EIR Section 2.10 do not rely upon either the rural or urban CalEEMod defaults. As described in Section 4.3 of the Global Climate Change Evaluation (Appendix C-2 of the EIR), project-specific VMT was provided by Chen Ryan in their Transportation Demand Management Program Evaluation (Appendix A to Appendix C-2), which was based on information provided by SANDAG. This project-specific approach provides a more accurate estimate of VMT and therefore GHG emissions.

The commenter is correct in stating that CalEEMod assumes 10.2 percent of energy procured by SDG&E is from renewable resources. The default carbon intensity factors are based on data for SDG&E from 2009. According to the Renewables Portfolio Standard (RPS) Quarterly Report for the first quarter 2011, SDG&E had 10.2 percent renewable energy in 2009. These values were not updated in the most recent version of (CalEEMod 2016.3.2) used in the analysis. Therefore, it is appropriate to use a baseline of 10.2 percent renewables to calculate carbon intensity with further implementation of the RPS.

The comment also states that Section 2.10, Global Climate Change, of the 2019 Recirculation Package improperly assumes that SDG&E will comply with the RPS mandates enacted into law by SB 100, which requires that SDG&E procure 60 percent of its energy from renewable resources by 2030. In response, it is standard industry practice to estimate GHG emissions with an input parameter that reflects the local utility's compliance with the RPS, the implementation of which is overseen and enforced by the California Energy Commission (see https://www.energy.ca.gov/programs-and-topics/programs/renewables-portfolio-standard/renewables-portfolio-standard-2). Assuming that 10.2 percent of SDG&E's electricity is procured from renewable resources, as suggested by the commenter, is not reasonable. Indeed, as illustrated by SDG&E's 2017 power content label (see https://ww2.energy.ca.gov/pcl/labels/2017_labels/SDG_and_E_2017_PCL.pdf), 44 percent of its electricity was procured by SDG&E from renewable resources in 2017, demonstrating that

the utility is on the trajectory to procure 60 percent of its electricity from renewable resources by 2030.

RO-6-40 The comment serves as a conclusion to statements regarding the underestimation of proposed Project emissions. Please see Response to Comment RO-6-38 and Response to Comment RO-6-39. Based on the County's review of the information provided in response to the referenced comments, recirculation is not required by CEQA Guidelines Section 15088.5.

RO-6-41 The comment states that Section 2.10, Global Climate Change, of the 2019 Recirculation Package lacks evidentiary support regarding the effectiveness of carbon offsets as a form of mitigation to reduce GHG emissions. The comment does not offer any specific critique; absent additional information, the commenter is referred to Global Response R1: Carbon Offsets.

RO-6-42 The comment states that the purchase of carbon offsets to mitigate GHG emissions "operates as a kind of mitigation fee" that must meet standards set forth in referenced CEQA case law. In response, mitigation measures M-GCC-7 and M-GCC-8 provide multiple criteria and performance standards designed to ensure that carbon offsets procured for the proposed Project, should it be approved, would be purchased from recognized, reputable carbon registries, and that the offsets meet enumerated standards designed to ensure the offsets are generated by projects and activities that effectively avoid, reduce, or sequester GHG emissions. Please also see Global Response R1: Carbon Offsets, which explains why the use of carbon offsets is a feasible and effective way to reduce GHG emissions under CEQA.

RO-6-43 The comment serves as an introduction to comments that follow regarding the commenter's conclusion that the use of offsets in mitigation measures M-GCC-7 and M-GCC-8 is "flawed – and in violation of CEQA." Please see Responses to Comments RO-6-44 through RO-6-55.

RO-6-44 The comment states that Section 2.10, Global Climate Change, of the 2019 Recirculation Package fails to provide sufficient evidence that mitigation measure M-GCC-8's 30-year mitigation period is sufficient. In response, CEQA Guidelines Section 15064.4(a) requires a lead agency to make a "good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas [GHG] emissions resulting from a project." Section 15064.4(c) further provides that a lead agency has the "discretion to select the model or methodology it considers most appropriate," provided it supports its decision with substantial evidence.

Mitigation measure M-GCC-8 requires the proposed Project to purchase and retire carbon offsets in a quantity that is sufficient to reduce the proposed Project's operational GHG emissions to net zero for a 30-year period. The County, as lead agency, has determined that a 30-year project life is the appropriate methodology for delineating the extent of the proposed Project's GHG emissions inventory for purposes of mitigation measure M-GCC-8's applicable mitigation period. Also, this discussion demonstrates that the use of 30-year project life is a methodological determination that is strongly supported on at least five grounds, each of which provides an independent basis for utilizing the subject analytic framework:

1. CARB, the state agency charged with the responsibility for and expertise to administer the State's GHG emissions policies (Health & Saf. Code Section 38510), has approved the use of a 30-year project life when mitigating operational GHG emissions associated with land use development projects in furtherance of achieving a no net increase in GHG emissions levels. Specifically, when working with the California Department of Fish and Wildlife (CDFW) to evaluate the environmental impacts of the Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan (RMDP/SCP), which would facilitate the development of a large-scale, master-planned community in Los Angeles County, CARB determined that utilization of a 30-year mitigation period would enable the RMDP/SCP project to achieve net zero GHG emissions.[1]

   A 30-year project life also has been used and approved by CARB to calculate offset requirements for qualified "leadership projects" under AB 900 (Pub. Resources Code Sections 21178 through 21189.3). To obtain certification as a "leadership project," a project must, among other requirements, "not result in any net additional emission of [GHGs], including [GHG] emissions from employee transportation, as determined by CARB pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code." (Pub. Resources Code Section 21183(c).) As of this writing, all AB 900 projects submitted to CARB and the Governor for certification use a project life of 30 or fewer years when calculating GHG emissions reductions.[2]

2. The Project site is located in the San Diego Air Basin and is under the jurisdiction of the San Diego Air Pollution Control District (SDAPCD). However, the SDAPCD does not provide guidance on the subject of mitigation periods for GHG emissions. Therefore, reference was made to the guidance of the neighboring air district, the South Coast Air Quality Management District (SCAQMD), which supports using a 30-year project life to analyze a project's GHG emissions under CEQA, as more fully explained below.[3]

   SCAQMD generally authorizes the use of a 30-year project life to calculate GHG emission offsets in the CEQA mitigation context for land use development. More specifically, in conjunction with its development of GHG emissions significance thresholds for application in the CEQA context, SCAQMD identified a 30-year project life offset criterion after multiple stakeholder working group meetings. SCAQMD recommended this specific project life because: "… the 30-year life of credits is based on a standard 30-year economic life of a project (equipment, etc.) and the SCAQMD

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1 See CDFW, *Final Additional Environmental Analysis for the Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan* (SCH No. 2000011025) (June 2017).

2 The cited documentation for the referenced AB 900 projects is located at http://www.opr.ca.gov/ceqa/california-jobs.html.

3 SCAQMD is principally responsible for comprehensive air pollution control in the South Coast Air Basin, which includes portions of Los Angeles, Riverside and San Bernardino counties and all of Orange County.

is looking at that time period as a default time period. Other shorter options, such as equipment permitted for a shorter time period, would be considered and evaluated on a project-by-project basis."[4]

SCAQMD folded this 30-year project life into its recommendation for arriving at GHG emissions reduction measures, stating: "… the lead agency would quantify GHG emissions from the project and the project proponent would implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level. In addition, the project proponent would be required to provide offsets for the life of the project, which is defined as 30 years."[5]

In December 2008, SCAQMD's Board adopted the staff-recommended interim GHG significance threshold for stationary source/industrial projects where the air district is the CEQA lead agency; that threshold uses a 30-year project life for modeling purposes and for determining required mitigation. SCAQMD's Board was not asked to take final action on the significance evaluation framework developed by staff for residential and commercial projects, due to the need for further work efforts related to CARB's then-pending interim GHG proposal. However, SCAQMD's documentation does not discriminate between project type (industrial vs. residential/commercial) for purposes of delineating the project life criterion. Instead, like in the industrial/stationary source context, the mitigation offsets criterion for residential/commercial projects also applies to a 30-year project life.

3. A 30-year project life is widely used in CEQA documents by expert consultants and lead agencies—including San Diego County, the local land use agency with jurisdiction over the Project site—for analyzing a project's GHG emissions under CEQA. It is industry practice to amortize construction emissions for residential and commercial projects over a 30-year period, which corresponds to the assumed operational life of such projects. This standard practice is not limited to the County of San Diego, but rather is used by lead agencies and expert consultants across California. Examples include:

   Certified Final EIR for the Otay Ranch University Villages Project (SCH No. 2013071077; November 2014), Lead Agency: City of Chula Vista, GHG Consultant:

[4] SCAQMD, Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group Meeting #6 (October 22, 2008), p. 4; see also ICF International Technical Memorandum, Appendix B, Summaries of Working Group Meetings, Figure B-3, Proposed Tiered Decision Tree Approach, at p. B-10 (Jul. 30, 2008) ["Offsets provided for 30-year project life, unless project life limited by permit, lease, or other legally binding conditions."].

[5] SCAQMD, Draft Guidance Document – Interim CEQA GHG Significance Threshold, Attachment E, pp. 3-16 (Oct. 2008); see also id., Figure 3-1, p. 3-11 and Table 3-4, pp. 3-18. Also of note, SCAQMD recognized that a shorter project life (i.e., less than 30 years) can be appropriate for use in modeling under certain circumstances. (See id., Figure B-3, pp. B-10.)

Dudek, Global Climate Change Section at pages 5.14-21 and 5.14-24 (available at: http://www.chulavistaca.gov/home/showdocument?id=8453);

Draft EIR for the Qualcomm Stadium Reconstruction Project (SCH No. 2015061061; August 2015), Lead Agency: City of San Diego, GHG Consultant: AECOM, Greenhouse Gas Emissions Section at pages 4.5-14, 4.5-16 and 4.5-19 (available at: https://www.sandiego.gov/sites/default/files/legacy/cip/pdf/stadiumeir/chap4.pdf);

Certified Final EIR for the 333 La Cienega Boulevard Project (SCH No. 2016011061; September 2016), Lead Agency: City of Los Angeles, GHG Consultant: ESA, Initial Study at pages B-42 to B-43 (available at: http://planning.lacity.org/eir/333LaCienaga/files/Appendix%20A-1%20-%20Part%201%20Initial%20Study.pdf);

Initial Study/Mitigated Negative Declaration for the Oakland Airport Perimeter Dike FEMA and Seismic Improvements Project (SCH No. 2015092045; September 2015), Lead Agency: Port of Oakland, GHG Consultant: URS, page 3-40 (available at: http://www.portofoakland.com/files/PDF/environment/Airport_Public_Draft_IS_MND.pdf);

Certified Final EIR for The Landing at Walnut Creek Apartments Project (SCH No. 2013092048; May 2014), Lead Agency: City of Walnut Creek, GHG Consultant: The Planning Center l DC&E (PlaceWorks), Greenhouse Gas Emissions Section at pages 4.7-14 and 4.7-15 (available at: http://www.walnut-creek.org/home/showdocument?id=3000); and

Certified Final Additional Environmental Analysis for the Newhall Ranch RMDP/SCP Project (SCH No. 2000011025, June 2017), Lead Agency: CDFW, GHG Consultants: Ascent Environmental, Inc. and Ramboll Environ, Global Climate Change/Greenhouse Gas Emissions Section at pages 2.1-20 through 2.1-22 (available at: https://www.wildlife.ca.gov/regions/5/newhall).

4. Executive Order (EO) S-3-05 established 2050 as the target year for an 80 percent reduction in statewide GHG emissions below 1990 levels. The regulatory framework needed to achieve this target requires transforming the State's transportation, energy, and industrial sectors. As such, the future GHG emission profiles for these sectors are not generally known. And, modeling emissions significantly beyond 2050 requires speculation about GHG emissions that are not knowable or known.

Here, the Project's mitigation period under mitigation measure M-GCC-8 is 30 years. Because the mitigation obligation is subject to phased implementation, based on the incremental portion of development associated with each Site Plan and its corresponding building permits, the mitigation period extends beyond 2050 for Site Plans with corresponding building permits that are issued later in the Project's

construction schedule. For example, the anticipated build-out year of the project is 2030. If any building permits for implementing Site Plans are issued in 2030, the mitigation period for the associated buildings would extend to 2059.

Based on information provided above regarding regulatory input and modeling parameter limitations for post-2050 emissions estimates, a 30-year project life (that extends beyond the target year established by the referenced EO) has been established as the period of time for which GHG emissions can be reasonably estimated without undue speculation.

It also is noted that many of the Project's on-site emission reduction strategies are part of the built environment and, therefore, expected to have long-lasting reduction effects. For example, M-GCC-4's Zero Net Energy design requirement for the Project's single-family residences would result in physical improvements and attributes of the building envelopes that are not readily changeable. Additionally, M-GCC-1's Transportation Demand Management requirements would result in physical components to the Project development parameters (e.g., trails network), as well as educational, incentive and transportation programs administered for the life of the community by a Transportation Coordinator. Further, any carbon offsets secured pursuant to M-GCC-7 and M-GCC-8 would not necessarily be affiliated with GHG reduction projects that are expected to have expired effectiveness after a 30-year period. Rather, GHG reduction projects that generate offsets from forestry, livestock, methane capture and other projects reasonably would continue to be environmentally beneficial.

5. The modeling analysis likely overestimates the Project's GHG emissions because the modeling does not take into account reasonably foreseeable regulatory programs and other governmental strategies and technological factors that likely would result in further reductions in GHG emissions levels throughout California that are needed to achieve the State's 2030 and 2050 GHG reduction targets. Those future policies, regulations, and programs are not yet adopted and their precise parameters are unknown at this time.[6] Because of these uncertainties, predicting, with quantified precision, key variables and inputs affecting long-range GHG emissions forecasts beyond the 30-year period requires speculation, contrary to CEQA Guidelines Section

[6] CARB's *2017 Climate Change Scoping Plan* incorporates the "Cleaner Technology and Fuels Scenario" of CARB's *Mobile Source Strategy* (May 2016), which is based on the assumption that the combined car and light trucks sales of zero emission vehicles and plug-in hybrid electric vehicles will reach 100 percent by 2050. (*Mobile Source Strategy*, p. 36.) On page 65 of the *Mobile Source Strategy*, CARB similarly observes that: "The updated Vision analysis shows the vast majority of the on-road fleet must be ZEVs and PHEVs by 2050 in order to meet GHG targets, requiring sales to achieve nearly 100 percent ZEVs (BEVs, FVCs, and PHEVs combined) by that point." Therefore, CARB, with the contemplated amendment of its Advanced Clean Cars regulation described in the *Mobile Source Strategy*, is striving to ensure that 5.3 million combined ZEVs and PHEVs statewide are on California's roadways in 2050. (*Mobile Source Strategy*, p. 65.)

The referenced "Vision analysis" is based on a multi-pollutant scenario planning tool that quantifies changes in criteria air pollutants (and their pre-cursors), GHG emissions, toxic air contaminants and petroleum usage as various technologies become widespread in vehicle and equipment fleets. (*Mobile Source Strategy*, p. 6.)

15145. The inherent uncertainties are reflected in available GHG emissions modeling tools, which are limited to the integration of existing regulatory and technological standards.

In using the 30-year project life, the County recognizes that the residential and non-residential development facilitated by the Project could continue to exist for more than 30 years. During and after the 30-year project life period, the Project would be subject to a range of existing and future regulatory standards and policies applicable to the built environment. Indeed, California is expected to implement numerous additional policies, regulations and programs to reduce statewide emissions to achieve the GHG reduction goals of SB 32 and EO S-3-05. The County has exercised its discretion to determine that a 30-year project life is reasonable and supported by the substantial evidence discussed below.

Also of note, in a decision issued on December 19, 2018 (see *Friends of the Santa Clara River et al. v. County of Los Angeles* [Case No. BS 170568]), the Los Angeles County Superior Court found that a 30-year period for the mitigation of operational GHG emissions via carbon offsets is supported by substantial evidence. The Superior Court cited evidence in the record of proceedings before it concerning reasonable scientific limits; the parameters of available modeling tools; the changing regulatory structure and post-2050 uncertainties; and the use of the same temporal period by other expert agencies, including CARB and SCAQMD, as well as multiple CEQA lead agencies. The referenced decision is included in Attachment RO6.1 to these Responses to Comments. While the Superior Court's decision in that matter is not citable precedent in a legal context, was appealed, and is currently being considered by California's Second District Court of Appeal, Division Five (see Case No. B296547), the petitioners in that case have not challenged the Superior Court's decision relative to any GHG issues, including the 30-year mitigation period.

In summary, and in accordance with the authority established by CEQA Guidelines Section 15064.4(a)(1), the choice of a 30-year project life is consistent with established modeling frameworks used in CEQA analysis and the available scientific and evidentiary information. Each of these five grounds independently substantiates the 30-year period set forth in mitigation measure M-GCC-8. They provide the substantial evidence needed for the County to develop project-specific methods in accordance with CEQA Guidelines Section 15064.4(a)(1). Given the use and endorsement of a 30-year project life method by multiple experts in the field (i.e., CARB, SCAQMD, the County of San Diego, and other lead agencies and GHG consultants), as well as the speculation required to estimate post-2050 GHG emissions and the embedded conservatism of the proposed Project's GHG emissions inventory data, the 30-year mitigation period is appropriate, reasonable, and supported by substantial evidence.

RO-6-45 The comment notes that the Newhall Ranch Greenhouse Gas Reduction Plan imposes a quantitative set of locational performance standards and states that use of out-of-County offsets violates the County of San Diego General Plan. The County acknowledges the California Department of Fish and Wildlife's use of quantitative locational performance standards in conjunction with the Newhall Ranch Project (see EIR Appendix C-27). However, the County also notes that neither CEQA nor State policy mandates the use of such quantitative benchmarks.

Here, the geographic priority system set forth in mitigation measures M-GCC-7 and M-GCC-8 is designed to be consistent with the policy of maximizing localized co-benefits, where feasible. The County also notes that the scale of the proposed Project is quite different from that of the Newhall Ranch Project, which calls for the development of more than 21,000 residential units and more than 9 million square feet of non-residential uses. The variation in scale affects the ability of various reduction strategies to effectively reduce emissions and otherwise be deemed economically feasible. As shown in both mitigation measures, the Project is required to geographically prioritize its reductions pursuant to the following hierarchy: (i) off-site, unincorporated County areas; (ii) off-site, incorporated County areas; (iii) off-site areas within California; (iv) off-site areas within the United States; and, (v) off-site areas that are internationally located. The Project is explicitly prohibited from using offsets from a lower priority category until it has been determined that offsets from a higher priority category are unavailable or infeasible.

The County also notes that the scale of the proposed Project is quite different from that of the Newhall Ranch Project, which calls for the development of more than 21,000 residential units and more than 9 million square feet of non-residential uses. The variation in scale affects the ability of various reduction strategies to effectively reduce emissions and otherwise be deemed economically feasible.

As for the proposed Project's consistency with General Plan Goal COS-20, please see Appendix E-1 (including Attachment A thereto) of the 2019 Recirculation Package and Global Response R1: Carbon Offsets. Appendix E-1 and the Global Response contain evidence and analysis supporting the conclusion that General Plan Goal COS-20 does not preclude the use of all available means to reduce GHG emissions, including out-of-County offsets.

RO-6-46 Citing provisions of the California Health & Safety Code, the comment states that mitigation measures M-GCC-7 and M-GCC-8 fail to require that any offsets be "additional." The comment also states Section 2.10, Global Climate Change, of the 2019 Recirculation Package lacks standards sufficient to ensure that offsets are real, enforceable, additional, and otherwise consistent with CEQA's mitigation requirements. In response, the County notes that—during the SB 97 rulemaking that culminated in the adoption of provisions in the CEQA Guidelines specific to GHG emissions–the California Natural Resources Agency and Governor's Office of Planning & Research addressed the additionality of offsets within the CEQA context as follows:

> "[E]mission reductions that occur without a project would not normally qualify as mitigation … [T]his interpretation of the CEQA statute and case law is consistent with the Legislature's directive in AB 32 that reductions relied on as part of a market-based compliance mechanism must be 'in addition to any [GHG] emission reduction otherwise required by law or regulation, and any other [GHG] emission reduction that otherwise would occur.' [citation omitted] While AB 32 and CEQA are separate statutes, the additionality concept may be applied analytically in the latter as follows: [GHG] emission reductions that are otherwise required by law or regulation would be appropriately considered part of the existing baseline … Thus, … the Natural Resources Agency has revised section 15126.4(c)(3) to state that mitigation includes: 'Off-site

> measures, including offsets that are not otherwise required, to mitigate a project's emissions.'"[7]

As shown by this excerpt from the SB 97 rulemaking, the verbiage in CEQA Guidelines Section 15126.4(c)(3)—which is quoted in mitigation measures M-GCC-7 and M-GCC-8—was designed to be consistent with the commenter's interpretation of additionality. As such, carbon offsets purchased for the proposed Project pursuant to M-GCC-7 and M-GCC-8 would be additional because they are expressly required to be "not otherwise required" in accordance with the approach delineated by the California Natural Resources Agency and Governor's Office of Planning & Research when adopting the operative GHG provisions of the CEQA Guidelines.

Also of note, and in response to the comment's statement that the EIR "lacks evidence that there exist any offset programs capable of ensuring that offsets are 'additional,'" in *Our Children's Earth Foundation v. CARB* (2015) 234 Cal.App.4th 870, 879-880, California's First District Court of Appeal recognized that additionality objectives were being achieved:

> "[P]rotocols developed by the Climate Action Reserve (Reserve) employ a standards-based approach for ensuring additionality. The Reserve is a national nonprofit organization that (1) develops standards for evaluating, verifying and monitoring GHG emission inventories and reduction projects in North America; (2) issues offset credits for those projects; and (3) tracks offset credits over time 'in a transparent, publicly-accessible system.' A primary goal of the Reserve is to establish conservative GHG accounting which will ensure that GHG emission reductions are 'real, permanent, additional, verifiable, and enforceable by contract.' In formulating its standards-based protocols, the Reserve identifies types of emission reduction projects that are both subject to quantification and appropriate for assessment pursuant to performance-based additionality tests."

For additional information regarding the proposed Project's use of offsets and their effectiveness at reducing GHG emissions, please see Global Response R1: Carbon Offsets.

RO-6-47 The comment states that the "identity of the registry selling an offset credit does not establish the quality of the credit or the protocol under which it was issued." In response, the County notes that climate registries are focused on achieving environmental integrity because—even in the arena of "voluntary" offsets—principles of accountability and transparency drive the marketability of offsets. To this end, the Climate Action Reserve began as the California Climate Action Registry, which was created by the State of California in 2001 to address climate change through voluntary calculation and public reporting of emissions. The Reserve establishes high-quality standards for carbon offset projects, oversees independent third-party verification bodies, issues carbon credits generated from such projects, and tracks the transaction of credits over time in a transparent, publicly accessible system. Indeed, during rulemaking for the Cap-and-Trade

[7] California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97* (December 2009), pp. 88-89.

Program, CARB stated: "Beginning in 2005, the Climate Action Reserve … began adopting voluntary GHG accounting protocols to encourage early action to reduce GHG emissions. [C]ARB recognizes the rigor of the voluntary accounting procedures CAR adopted to establish that GHG emissions are real, additional, and permanent."[8] Verra and the American Carbon Registry are similarly multi-dimensional—the registries develop and administer programs for the creation, implementation and verification of offset projects. For more information on the effectiveness of carbon offsets, please see Global Response R1: Carbon Offsets.

RO-6-48 The comment states that the 2019 Recirculation Package "provides no indication whether there are a sufficient amount of GHG offset credits available" to meet the demand of the proposed Project and those of other projects in the San Diego region. As discussed in Global Response R1: Carbon Offsets, based on the County's research, it believes that sufficient carbon offsets are available for use within the CEQA context.[9] By way of example, as of November 2017, the Climate Action Reserve has issued more than 100 million carbon offsets.[10] The Climate Action Reserve found that California leads the nation in the number of offset projects registered (52) and the number of credits issued (22.5 million).[11] The American Climate Registry reached the same milestone in August 2017,[12] and Verra has certified more than 1,300 projects that have removed or reduced more than 200 million metric tons of GHGs.[13] Further, the development of offset projects is driven by market demand, which—at least in part—is influenced by California's strong environmental protection policies. As such, offset project developers are expected to continue to pursue carbon reduction opportunities and technologies to meet demand.

Also of note, the proposed Project's mitigation requires that proof of a sufficient offset quantity be provided *before* issuance of grading and building permits. Therefore, if offsets are not available, permits will not be issued, and proposed Project-related emissions will not occur.

RO-6-49 The comment cites to two articles in support of its conclusion that carbon offsets purchased from the voluntary marketplace, in lieu of compliance-based offsets issued under the Cap-and-Trade Program, are "unregulated" and of questionable effectiveness. In response, please see Global Response R1: Carbon Offsets regarding the protocols that are used to ensure the effectiveness of carbon offsets. As for the application of Cap-and-Trade Program standards, the carbon offsets

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8 CARB, "Proposed Regulation to Implement the California Cap-and-Trade Program," Part I, Volume I: Initial Statement of Reasons (October 2010) at II-48.

9 See, e.g., Unlocking Potential: State of the Voluntary Carbon Markets 2017, Ecosystem Marketplace, available at https://www.cbd.int/financial/2017docs/carbonmarket2017.pdf.

10 See http://www.climateactionreserve.org/blog/2017/11/06/thank-you-for-helping-us-reach-100-million-metric-tons-of-ghg-emissions-reductions/ and http://www.climateactionreserve.org/blog/2017/11/06/north-american-climate-action-shows-its-strength-and-impact-with-milestone-100-million-offset-credits-issued-by-a-california-carbon-market-pioneer/.

11 See http://www.climateactionreserve.org/blog/2017/11/06/thank-you-for-helping-us-reach-100-million-metric-tons-of-ghg-emissions-reductions/.

12 See https://americancarbonregistry.org/news-events/program-announcements/acr-reaches-milestone-issuance-of-100-million-tonnes-of-greenhouse-gas-emissions-reductions.

13 See http://verra.org/project/vcs-program/.

purchased for the proposed Project would be from the voluntary marketplace because the proposed Project is not a regulated entity covered by and subject to CARB's Cap-and-Trade Program. As for the proposed Project's consistency with the General Plan, please see Appendix E-1 (including Attachment A thereto) of the 2019 Recirculation Package and Global Response R1: Carbon Offsets. Both documents contain evidence and analysis supporting the conclusion that the General Plan does not preclude the use of all available means to reduce GHG emissions, including out-of-County offsets. While the use of out-of-County offsets is not prohibited by the General Plan, it also is emphasized that the Project would result in in-County reductions. For example, the Project's landscape and vegetation plans are estimated to result in the sequestration of approximately 3,799 MT CO_2e. Additionally, implementation of M-GCC-1 through M-GCC-5's energy use and VMT reduction requirements is estimated to reduce approximately 5,166 MT CO_2e. (The on-site emission reduction values provided conservatively exclude anticipated reductions from M-GCC-6, which provides infrastructure-level support for the State's zero emission vehicle deployment objectives. As a result, the Project's on-site emission reductions likely are understated at 15%.) Relatedly, as to mitigation measure CC-1.2 adopted in conjunction with approval of the County's 2011 General Plan Update, that measure establishes a jurisdictional responsibility of the County to prepare a climate action plan and does not impose requirements on individual projects.

RO-6-50 The comment states that mitigation measure M-GCC-8 should be revised "to increase offsets if future events provide that the 2019 Recirculation Package's emissions assumptions are too low," and characterizes the measure's existing "true-up provision" as a "lopsided standard." In response, M-GCC-8 delineates a process whereby the proposed Project can request a modification to the GHG emissions mitigation burden should the regulatory or technological environment change; such modification would be considered by the County's Board of Supervisors pursuant to a noticed public hearing process. Additionally, if such modification is requested, the proposed Project is required to demonstrate the continuing adequacy of modeling inputs used in the EIR that are not proposed to be altered as part of the "true-up" process, thereby ensuring a balanced re-quantification of all of the proposed Project's emissions sources. The measure's "true-up" parameters are designed to respect the finality of the CEQA process, absent the request for an additional discretionary entitlement or approval. The County also notes that, as a general matter, it does not expect proposed Project-related GHG emissions to increase beyond those reported in the EIR for at least two reasons: (1) emissions modeling conducted for CEQA purposes often is based on a series of conservative inputs designed to assess impacts; and (2) regulatory and technical developments have continually trended towards more efficiency and fewer emissions. Given California's role as a leader on the subject of global climate change, it is highly unlikely that the regulatory environment will become less rigorous or that the State will cease to be a hub for technological innovation.

RO-6-51 The comment reiterates the concern addressed in Response to Comment RO-6-50, and states that the EIR does not contain "any provisions for monitoring or recalculating actual emissions from the Project if it changes during final design or as it is built out." In response, the environmental ramifications of proposed Project changes subject to a discretionary approval would be subject to evaluation in accordance with the relevant CEQA provisions (see, e.g., CEQA Guidelines Sections 15162 through 15164).

RO-6-52 The comment states M-GCC-7 and M-GCC-8's approach of meeting the proposed Project's GHG reduction requirements with the use of out-of-County offsets "simply allows the County to perpetuate sprawling land use development patterns." The comment further states the approach to mitigation "allows in-County emissions to multiply while out-sourcing reductions to unreliable international offsets," which the commenter characterizes as "violat[ing] both the letter and the spirit of CEQA (as well as the County's General Plan)." In response, please refer to Global Response R1: Carbon Offsets, which discusses that CEQA authorizes a portfolio-type approach to the mitigation of GHG emissions, including the location of the emission reduction.

The DEIR would require the proposed Project to mitigate its GHG emissions through the development of a multi-pronged suite of onsite reductions strategies to the extent feasible; after exhausting feasible onsite opportunities, the DEIR mitigation provides for the use of carbon offsets subject to articulated performance standards for environmental integrity. This approach does not violate CEQA or conflict with the General Plan.

Further, as explained in Section 2.10 of the 2019 Recirculated Draft EIR, it must be emphasized that the Project does not propose or request an increase in residential density or non-residential intensity beyond that previously approved by the County in the Otay Ranch General Development Plan/Otay Subregional Plan (1993), which was incorporated into the County's General Plan (2011) land use framework.

RO-6-53 The comment states that the 2019 Recirculation Package "fails to acknowledge, let alone evaluate, the precedent-setting nature of this offset program," asserting that the approach recommended in this DEIR "will encourage other land use development projects in remote areas within the County, thereby further undermining the viability of the RTP/SCS to achieve its GHG reduction goals." In response, proposed Project consistency with SANDAG's RTP/SCS is addressed in Section 2.10, Global Climate Change, of the 2019 Recirculation Package. The comment offers no specific critique of that analysis, which describes the role of the proposed Project within the larger Otay Ranch planned community, of which it is apart. The analysis also discusses the proposed Project's Transportation Demand Management (TDM) strategies, which do serve to reduce proposed Project-related VMT.

The general approach taken in the 2019 Recirculation Package accords to the recommendations set forth in CARB's *California's 2017 Climate Change Scoping Plan*: "[a]chieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development." In that document, CARB recognized that a mitigation framework to achieve that objective may need to be diverse, and not just limited to one particular type of reduction activity.

RO-6-54 The comment states that the 2019 2019 Recirculation Package fails to consider whether the use of "offset credits will cause any significant environmental impacts." In response, CEQA Guidelines Section 15126.4(a)(1)(D) states the following: "If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed." In this instance, and based on the type of

information reasonably available at this time, the proposed Project's utilization of carbon offsets—via implementation of mitigation measures M-GCC-7 and M-GCC-8—is not expected to result in one or more significant effects because carbon registries prioritize protocols for offset project types that can create significant co-benefits and avoid those with significant negative social and environmental impacts.

For example, as provided in Section 2.4.6 of its *Program Manual*, the Climate Action Reserve "requires project developers to demonstrate that their GHG projects will not undermine progress on other environmental issues such as air and water quality, endangered species and natural resource protection, and environmental justice." (See *Program Manual* [September 1, 2015], available at http://www.climateactionreserve.org/how/program/program-manual/.) To ensure that such adverse effects are avoided, the Climate Action Reserve coordinates with government agencies and environmental representatives, requires project developers to demonstrate compliance with all applicable laws (including environmental regulations), and may include—within individual offset protocols—requirements specifically designed to serve as environmental and social safeguards. Other carbon registries recognized by the proposed Project's mitigation framework deploy the same overall approach to environmental protectionism. In summary, the purpose of carbon offsets-generating projects is not to trade one environmental harm for another; rather, such projects are generated in compliance with applicable environmental regulations and laws, and strive to optimize environmental interests.

Also, the County disagrees that the failure to provide local co-benefits is an "impact" for purposes of CEQA. The proposed Project has adopted mitigation for the reduction of co-pollutants to the extent feasible; see Section 2.2, Air Quality, of the 2015 DEIR.

RO-6-55 The comment is a conclusion to those comments that preceded it. Please see Responses to Comments RO-6-43 through RO-6-54.

RO-6-56 The comment references the pending judicial proceedings concerning the County of San Diego's Climate Action Plan (CAP) that was adopted in February 2018. The commenter states that the injunction issued by the San Diego County Superior Court in those proceedings precludes the County from using carbon offsets here. In response, please see Global Response R2: County of San Diego Climate Action Plan. As discussed therein, the record evidence in these proceedings is distinguishable from that in the CAP proceedings. Additionally, the San Diego County Superior Court declined a request from the petitioners in the CAP proceedings to prohibit the County's further processing of General Plan Amendments and the County's use of carbon offsets generally. Instead, the Superior Court limited the decision to the County's CAP. Because the proposed Project does not use, rely on, or tier from the CAP and the mitigation measure at issue in that litigation, the County is able to continue processing its development applications and environmental review. It also is noted that the Project does not propose or request an increase in residential density or non-residential intensity beyond that previously approved by the County in the Otay Ranch General Development Plan/Otay Subregional Plan (1993), which was incorporated into the County's General Plan (2011) land use framework. As a result, and as explained in Section 2.10 of the 2019 Recirculated Draft EIR, the Project would not be required

to achieve net zero GHG emissions in order to demonstrate that its GHG emissions are less than significant under the County's implementing framework for the CAP.

RO-6-57 The comment states that the conclusion that the proposed Project would support SANDAG's Sustainable Community Strategy "lacks evidentiary support." The comment then states that the proposed Project's increase in VMTs is caused by the proposed Project's remote location, which ensures the majority of residents will be forced to rely on automobiles.

In response, the proposed Project is located within, and proposes development consistent with, the Otay Ranch GDP/SRP approvals issued by the County of San Diego and City of Chula Vista in 1993, and does not require an amendment to the County General Plan to increase density or intensity. As such, development of the Project site is a long-planned component of the County's land use framework and has been factored into regional planning efforts.

In regard to the SCS, SANDAG uses a multi-faceted approach to achieve the CARB-adopted GHG reduction targets:

> "Several components and strategies contribute toward SB 375 per capita greenhouse gas reductions from passenger vehicles. Approximately half of the reductions would result from the Regional Plan's investments in transit projects and their operations, managed lanes, active transportation projects, and TDM measures that support teleworking (i.e., working from home or telecommuting). About one-quarter of the reductions are estimated from changing land use and population characteristics, while another quarter are projected from increases in the cost of driving (auto operating costs)."[14]

In regard to the commenter's statement that "Chula Vista cannot be considered a major employment center by any stretch of the imagination," while Section 2.10 of the 2019 Recirculated Draft EIR does not use the phrase "major employment center," the County notes that the City of Chula Vista is an urbanized area and the second largest city in the region. Further, based on SANDAG's Series 13 Regional Growth Forecast projections, the number of jobs in the City of Chula Vista is projected to increase from 64,035 jobs in 2010, to 82,966 jobs in 2020, to 100,096 jobs in 2035, and to 114,435 jobs by 2050, for an average annual growth rate of 1.5 percent (the highest percentage growth rate in the region across all jurisdictions). (For supporting data, please see SANDAG's agenda report available at https://www.sandag.org/uploads/projectid/projectid_503_19238.pdf.)

RO-6-58 The comment states that the 2019 Recirculation Package does not assess the proposed Project's consistency with the SCS strategy to "invest in a transportation network that gives people transportation choices and reduces greenhouse gas emissions." In response, the proposed Project consistency with that strategy is addressed through discussion of the proposed Project's TDM strategies, which include (but are not limited to) enhancing travel routes for pedestrians and bicyclists and pursuing school transportation strategies that do not exclusively rely on single-

[14] See page 3 of Appendix C, Sustainable Communities Strategy Documentation and Related Information, of SANDAG's *San Diego Forward: The Regional Plan* (October 2015), available at http://www.sdforward.com/pdfs/Final_PDFs/AppendixC.pdf.

occupant vehicle trips. The Otay Ranch GDP/SRP's planning area encompasses land both within the unincorporated are of the County *and* within the City of Chula Vista. Based on the existing and projected employment levels within the City of Chula Vista, it is reasonable to anticipate that Project residents may work within that City and interact within land uses in the neighboring jurisdiction, helping to facilitate efficient transportation options and choices.

RO-6-59 The comment references the pending CAP judicial proceedings, and states that the San Diego County Superior Court invalidated the County's EIR for the CAP because it "failed to adequately analyze the VMT impacts and resulting implications for the San Diego area's SB 375 Planning and Goals." In response, please refer to Global Response R2: County of San Diego Climate Action Plan. The proposed Project would not impair SANDAG's attainment of its GHG reduction targets because it would achieve a net zero emissions level, and for the reasons discussed in Section 2.10, Global Climate Change, of the 2019 Recirculation Package. As for the proposed Project's VMT impacts, please see the VMT analysis prepared by Chen Ryan, included as Appendix E to Appendix C-2.

RO-6-60 The comment serves as a conclusion to previous comments addressed in Responses to Comments RO-6-57 through RO-6-59. Based on those responses, the County has determined that the EIR does not need to be recirculated as no new significant impacts have been identified.

RO-6-61 The comment identifies 18 measures, which it characterizes as feasible, and recommends that the County adopt the measures to further reduce the proposed Project's GHG emissions. The feasibility and applicability of each measure are assessed below.

Create car sharing programs. Accommodations for such programs include providing parking spaces for the car share vehicles at convenient locations accessible by public transportation.

The County understands the commenter to be requesting the creation of a car sharing program and parking for car sharing vehicles near public transit infrastructure. However, there are no plans by MTS to extend transit service to Village 13, negating the effectiveness of providing a car sharing program within this Project site; please see the italicized "*Build or fund a transportation center…*" item below for information regarding the proximity of existing transit opportunities.

While on-site transit opportunities do not presently exist on the Project site, Alternative H includes mitigation measure M-GCC-1, which includes quarterly notification to residents regarding transit options and outreach to residents to participate in the SANDAG iCommute program. The iCommute program, matches commuters using their private vehicles with common employment centers and job locations, which is a transportation demand management strategy for this Project that is an effective alternative to car sharing. The Energy Conservation Plan includes EDCs 6.21 and 6.22 to implement a mobility hub and commute trip reduction marketing.

A car sharing program would typically locate its vehicles near areas where vehicular ownership and high cost of parking make car sharing program feasible. In San Diego County, car sharing programs (such as Zipcar) locate their vehicles in Downtown San Diego and university campuses. While creating and operating an individual car sharing program is not feasible for the proposed

Project, the proposed Project is committed to provide a designated car sharing parking space should any of the car sharing companies decide to expand to the Project site.

Create local "light vehicle" networks, such as neighborhood electric vehicle (NEV) systems.

The City of Chula Vista is currently developing an NEV network, which will expand throughout the city. The current NEV network is focused around the Otay Ranch Town Center area and slow speed roadways. Due to the proposed Project location and the posted speed limit along Otay Lakes Road of 40–55 mph (west of the Project site), it would not be feasible to connect to the City of Chula Vista NEV network. Further, this technology is in the formative stage of development with limited examples of success in comparable developments to Alternative H. Thus, implementation of an NEV system is not feasible at this point for the proposed Project. In addition, Alternative H is designed to encouraged walking and cycling with a Village Core within a 10-minute walk and parks within a 5-minute walk from the majority of homes.

Build or fund a transportation center where various public transportation modes intersect.

The proposed Project will develop mobility hub features in the Village Core, which includes EV charging stations, ride hailing loading zones, designated micro mobility parking areas, bicycle parking areas for privately owned bicycles. Of note, the Project's Village Core would be accessible on foot to the majority (80%) of the proposed residential units with an approximately 10-minute walk. This can be seen in the exhibit attached to this Response to Comment as Attachment RO6.2.

Should SANDAG or the San Diego Metropolitan Transit System (MTS) desire to expand transit services to the Project area, the mobility hub will serve as a central transit center for the proposed Project. In the meantime, the Project HOA will coordinate with ride-share services to provide discount codes for ride-share-pooled services such as Uber-pool or Lyft-pool to the Otay Ranch Town Center transit station for those using the ride-share-pool services during commute peak hour. The Otay Ranch Town Center transit station, which provides service to the Bus Rapid Transit line 225, a convenient BRT connection to Downtown San Diego, is located less than 4 miles from the Project site.

Provide public transit incentives such as free or low-cost monthly transit passes.

Subsidized transit passes and incentives are not proposed as part of the proposed Project because MTS has no planned transit services to the Project site. However, to discourage single occupancy vehicle trips, mitigation measure M-GCC-1 includes quarterly notification to residents regarding transit options and outreach to residents to participate in the SANDAG iCommute program. This program matches commuters with common employment centers and job locations so that they can car-pool to and from work. Additionally, please see above regarding the proposed Project's mobility hub and discount ride-share-pool services to the nearby Otay Ranch Town Center transit station.

Site buildings to take advantage of shade, prevailing winds, landscaping and sunscreens to reduce energy use.

Mitigation measure M-GCC-4 requires all single-family residential homes to be Zero Net Energy (ZNE), which includes a suite of design options to reduce and conserve energy consumption to achieve the requirements of Title 24, Part 6 of the California Code of Regulations. EDC UT-ED-18 uses passive solar design and building orientation to take advantage of winter sun for heating and to reduce heat gain and to reduce cooling needs during the summer. EDC UT-ED-19 uses vertical elements in landscaping to reduce energy needed for heating and cooling. Alternative H will comply with requirements in the Subdivision Map Act and California State Building Code to achieve energy savings in building siting and design.

Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings.

Mitigation measure M-GCC-2 requires multi-family residential and non-residential buildings to use high efficiency interior lighting. Compliance with Title 24, Part 6 of the California Code of Regulations encourages the reduction of energy consumption through a suite of design options to the maximum extent practicable. In addition, Alternative H includes an Energy Conservation Plan, which includes requirements for energy efficient lighting and control systems.

Install light colors "cool" roofs, cool pavements, and strategically placed shade trees.

The use of energy efficient building materials and landscaping will be implemented as required by the County in the review of site development, building permits, and landscape plans. Alternative H utilizes best available practices to achieve State of California energy goals and implement ZNE residential and commercial buildings. The Specific Plan includes a landscape master plan that uses street streets and other landscape materials to address the heat island effect. High albedo paving materials are used where appropriate and available.

Provide information on energy management services for large energy users.

San Diego Gas and Electric (SDG&E) provides consumers with energy use data and programs to limit energy usage during high demand periods, such as time of use pricing to maximize the generation of energy from baseload renewable sources. The highest energy demand for Alternative H is the resort land use. The development of the resort shall include outreach to the public utility for education and information on energy management. The anticipated construction of the resort in 2030 would also require compliance with the State of California ZNE law.

Install energy efficient heating and cooling systems, appliances and equipment, and control systems.

Mitigation measures M-GCC-3 and M-GCC-4 require the installation of Energy Star appliances and ZNE homes to maximize energy efficiency. The Energy Conservation Plan includes EDCs 6.2, 6.3 and 6.4 to implement energy efficiency through the implementation of ZNE and a 10 percent greater building energy efficiency for multi-family and non-residential buildings.

Install light emitting diodes ("LEDs") for traffic, street, and other outdoor lighting.

The Energy Conservation Plan includes EDC 6.8, which requires outdoor lighting to use LED or equivalent high efficiency lighting.

Limit the hours of operation of outdoor lighting.

A condition to use timers and photocells to control outdoor lighting shall be included as an Environmental Design Consideration to the extent it does not negatively impact public health, safety, and welfare.

Provide education on energy efficiency.

Mitigation measure M-GCC-1 includes providing information to new homeowners. The Energy Conservation Plan includes EDC 6.7, which requires all new homeowners to be provided information on energy efficiency, energy efficient lighting control systems, energy management ,and existing energy incentive programs. EDC UT-ED-17 requires all residential units to be part of the local utility demand response program to limit peak energy usage for cooling.

Install energy-efficient heating ventilation and air conditioning. Educate consumers about existing incentives.

San Diego Gas and Electric (SDG&E) provides consumers with energy use data and programs, as well as information regarding rebates and time of use pricing. Energy efficient heating and cooling is a requirement of the State of California building code. The public utility is the appropriate and best positioned agency to educate its customers on the current state of incentives and rebates.

Use combined heat and power in appropriate applications.

The proposed Project is primarily a residential village with limited opportunities for shared heating and power systems. The largest commercial use (The Resort) will be developed as a unified development and has the greatest potential for a combined heat and power system. The resort will undergo a site development permit review process, at which time a combined heat and power system for the site can be explored further.

Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.

The Energy Conservation Plan includes EDC 6.13, which requires all landscaping to comply with the Model Water Efficient Landscape Ordinance. California Code of Regulations Title 23, Division 2, Chapter 2.7. The Water Conservation Plan includes additional Environmental Design Considerations to reduce water consumption.

Design buildings to be water-efficient. Install water-efficient fixtures and appliances.

Alternative H will comply with the State of California CALGreen building standards, which implement a suite of conservation measures. The Energy Conservation Plan includes EDC 6.9-14, which is related to indoor and outdoor water conservation measures.

Restrict the use of water for cleaning outdoor surfaces and vehicles.

Alternative H will include requirements to limit/eliminate the use of water for outdoor cleaning. This provides the dual benefit of conserving water and protecting the Lower Otay Reservoir. Alternate H will comply with current and future restrictions imposed by the County of San Diego regarding outdoor water use for non-landscape purposes.

Implement low-impact development practices that maintain the existing hydrologic character of the site to manage storm water and protect the environment. (Retaining storm water runoff offsite can drastically reduce the need for energy-intensive imported water at the site.)

The Project site is adjacent to the Lower Otay Reservoir, a City of San Diego drinking water facility. The City requires that runoff from the Project site would not be impaired and would be treated before being discharged to the reservoir. The City also opposes the use of reclaimed water due to the potential to impact the water quality of the reservoir for potable water use. Due to the proximity to the Lower Otay Reservoir, a City of San Diego facility, the Project applicant has agreed to the request of the Public Utilities Department to direct all available runoff to the reservoir and not retain/reuse runoff onsite.

RO-6-62 The comment states the 2019 Recirculation Package fails to evaluate the proposed Project's cumulative climate change impacts. The comment summarizes the cumulative impact findings of Section 2.10, Global Climate Change, of the 2019 Recirculation Package, and states that the findings are not supported by evidence because "there is no evidence that the Project's proposed mitigation will be effective at all." Please refer to Responses to Comments RO-6-41 through RO-6-55 regarding the effectiveness of the proposed Project's mitigation for GHG emissions.

RO-6-63 The comment states that it is "imperative" that the EIR be revised to calculate and disclose the cumulative increase in GHG emissions from other projects recently approved or pending before the County. The comment specifically calls out the construction and operation emissions from Harmony Grove, Lilac Hills, Newland Sierra, Village 14, and the PSR GPA. In response, CEQA Guidelines Section 15130(b) instructs that "[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness."

It is not standard CEQA practice to quantify GHG emissions from related projects as part of the cumulative impact analysis. For example, unlike traffic models that are designed to capture traffic from other existing, planned, and proposed development, models for the estimation of GHG emissions are not similarly formulated. In addition, estimating emissions for multiple projects is not practicable in the setting of one individual project file as each project analysis is informed by project-specific inputs known to its environmental consultant. Endeavoring to replicate such efforts likely would result in discrepancies and confusion in the inventory results. That being said, it is noted that many (if not all) of the referenced projects have committed to achieve a no net increase in GHG emissions, ensuring that—with mitigation—such projects would not result in a cumulatively considerable increase in GHG emissions and would not significantly impact the cumulative issue of global climate change. The GHG inventory information for the referenced projects is available on the County's website in the individual

EIRs for each project. However, the analysis used in Section 2.10, Global Climate Change, is consistent with approved standards of analysis.

As explained in Section 2.10 of the 2019 Recirculation Package, GHG emissions analysis, by its nature (and because of the science of global climate change), is oriented around the cumulative setting. Therefore, the significance determination rendered in Section 2.10 for the project-specific impact assessment is equally applicable to the cumulative-level impact assessment and is based on the Project change in the existing environmental conditions coupled with an assessment of plan-level consistency. In this instance, the proposed Project's incremental contribution to the cumulative condition is not significant with mitigation because Project-related emissions will be reduced to a net zero emissions level.

RO-6-64 The comment expresses the same concern addressed above regarding the availability of carbon offsets in quantities sufficient to meet the demand expected from County-approved projects. Please see Response to Comment RO-6-48. For additional information, see Global Response R1: Carbon Offsets.,

RO-6-65 The comment states that the County "must quantify the increase in VMT and GHG emissions from all of the development projects currently being considered and analyze the effect of those cumulative increase[s] on the County's ability to meet regional VMT and GHG reduction goals." Please see Response to Comment RO-6-63. The DEIR focuses on the proposed Project's incremental increase in GHG emissions and concludes that proposed Project impacts would not be cumulatively considerable with mitigation. This approach is consistent with CEQA.

RO-6-66 The comment states the 2019 Recirculation Package fails to analyze wildfire-related impacts and the proposed Project's potential to expose people or structures to hazardous conditions. The comment further states the 2019 Recirculation Package lacks evidentiary support for its conclusion that impacts relating to the proposed Project's potential to expose people to a significant risk of injury or death would be less than significant. The comment provides no analysis or specific comments regarding the inadequacy of the wildfire-related impacts. No further response is provided.

RO-6-67 The comment restates information from the DEIR and the 2019 Recirculation Package regarding wildfire history and potential wildfire hazards. The comment does not raise an issue regarding the adequacy of the environmental analysis;; therefore, no further response is provided.

RO-6-68 The comment restates information from the DEIR and the Fire Protection Plan (Appendix D-21). The comment then states that the 2019 Recirculation Package's conclusions that measures identified in the DEIR would be sufficient to protect structures from wildfire hazards, and that impacts will be less than significant, lacks substantial evidentiary support. The comment also expresses concerns in relation to the 2017 and 2018 California wildfires, that the proposed Project would increase the risk of a major fire in the Project area and threaten persons, their homes, and native habitat biodiversity, and that these risks have not been adequately mitigated.

In response, wildfire hazard analyses were completed in accordance with County guidelines, and the FPP was reviewed and accepted by the San Diego County Fire Authority.

The DEIR provides substantial evidence to support the conclusion that the proposed Project would not expose people or structures to a significant risk of loss, injury, or death from wildland fires.

The wildfire hazards analysis for Alternative H is considered appropriate for the proposed Project, its fire environment, and anticipated wildfire behavior.

RO-6-69 The comment states the DEIR fails to address the impact of Project-ignited fires spreading to adjacent communities. In response, all proposed Project structures would be fully sprinklered to the applicable occupancy requirements (i.e., residential vs. multi-family vs commercial). The proposed Project would provide an onsite fire station, which would ensure the travel time is within 5 minutes. The proposed landscaping would prohibit highly flammable plant species, which would minimize the potential for wildfire embers to ignite fuels and spread through the community. Additionally, the perimeter fuel modification zones include 100-foot-wide zones (with mitigated exceptions). Also, the proposed Project's educational outreach program for fire awareness will include the importance of restricting certain activities during the periods where vegetation ignitions and spread have a higher probability of occurring (Red Flag Warning periods).

RO-6-70 The comment refers to reports prepared by REAX Engineering to "critique the Village 14 EIR" and are included as exhibits to the commenter's letter on the 2019 Recirculation Package. These comments were prepared for a different project and were not intended to comment on this DEIR; therefore, no further response is provided. The comment also includes text from the Fire Protection Plan (FPP) for Alternative H (Appendix D-21). The commenter then states the FPP does not acknowledge or analyze the threat to adjacent communities. In response, please refer to Responses to Comments RO-4-66, RO-4-80, and RO-4-81 for details regarding the FPP's provided features that not only minimize potential fire threat to the proposed Project but provide fire safety benefits for existing neighboring communities.

RO-6-71 The comment states the 2019 Recirculation Package does not acknowledge that the proposed Project would add "thousands of new residents to the wildland urban interface which would increase the potential for wildfire." The comment also includes text from a REAX report that was prepared to critique Village 14, which is a separate project. In response, as stated in the Fire Protection Plan prepared for Alternative H (Appendix D-21) on page 21, "The wildland fire risk in the vicinity of the Alternative H Area has been analyzed according to San Diego County Guidelines for Determining Significance – Wildland Fire and Fire Protection (County of San Diego 2010). It has been determined that wildfires may occur in wildland areas that surround the Alternative H Area, but would not be significantly increased in frequency, duration, or size with the construction of the proposed Alternative H."

RO-6-72 The comment states the 2019 Recirculation Package's failure to evaluate the proposed Project's potential to increase wildfire ignitions is a serious flaw. Please see Response to Comment RO-6-71.

RO-6-73 The comment states the 2019 Recirculation Package does not adequately analyze emergency evacuation impacts. In response, CEQA requires analysis whether a project will impair

implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, not for an evacuation plan to be prepared. The DEIR adequately addresses this, as discussed in Section 2.6 of the DEIR (2015). In addition, the development is required to improve Otay Lakes Road to four lanes from Lake Crest Drive in the City of Chula Vista to the second project entry. Based on the factors and assumptions regarding neighborhood evacuation routes, and incorporating standard pre-evacuation timeframes, it is estimated the community can be evacuated west (the safest route thru a low to moderate wildland fire exposure rating) to urban Chula Vista within a conservatively calculated 1.5-hour travel time. The total evacuation time is approximately 2 to 2.5 hours, including a safety factor to allow for potential impedances/delays of an additional 30 to 60 minutes. For additional information, see Final EIR Global Response R5 – *Wildfire Protection and Evacuation.*

A Fire Protection Plan has been developed for the proposed Project and Alternative H and can be found in Appendices C-21 and D-21, respectively, of the Final EIR. Section 2.6.2.5 and Chapter 4.0 of the Final EIR also finds that the proposed Project and Alternative H would be compliant with all applicable fire codes, and would meet the emergency response objectives of the County General Plan. A WUI Plan will be prepared by the San Diego County Fire Authority specific to the Village 13 site and development footprint and will include information on evacuation of the Project site. See Responses to Comments RO-4-65 and RO-4-73 for additional details.

RO-6-74 The comment states an EIR should at least consider the number of cars attempting to evacuate the Project area, amount of time needed for full evacuation, acceptable time period, adequacy of primary evacuation route, and impacts to emergency personnel attempting to respond while an evacuation is underway. Please refer to Response to Comment RO-6-73.

RO-6-75 The comment refers to the "DEIR's lackluster approach to wildfire evacuation" and also refers to a Griffin Cove Transportation Consulting report that evaluates the DEIR's analysis. This comment serves as an introduction to comments that follow. Please refer to Response to Comment RO-6-73.

RO-6-76 The comment refers to text in the Fire Protection Plan for Alternative H (Appendix D-21) regarding early evacuation. Please refer to Response to Comment RO-6-73.

RO-6-77 The comment states the 2019 Recirculation Package contains no analysis of the ability of the roadway system to accommodate evacuating traffic and omits an estimate of the number of proposed Project-related vehicles that would need to be accommodated. The comment restates information provided in a referenced report included as Exhibit 20 to the comment letter. Please see Response to Comment RO-6-73. In addition, ultimate public safety offices will control and direct traffic during an evacuation, including changing directions on lane control.

RO-6-78 The comment states the 2019 Recirculation Package fails to consider that non-Project vehicles will also be on area roads during an evacuation and that Otay Lakes Road would be a primary evacuation route for other communities. The comment also references the report included as Exhibit 20 to the comment letter. Please refer to Response to Comment RO-6-73.

RO-6-79 The comment states the 2019 Recirculation Package "fails to take into account that evacuation efforts would be thwarted due to extreme traffic congestion on Otay Lakes Road." The comment also refers to the 2015 DEIR Traffic and Transportation Analysis, Section 2.9. Please refer to Response to Comment RO-6-73.

RO-6-80 The comment states the EIR fails to acknowledge or analyze numerous other factors that would likely occur during a wildfire evacuation, such as smoke, visible flames, and/or visibility issues and the emotional state of evacuees. The emotional state of evacuees is not a CEQA issue and therefore no further response is required. Please see Response to Comment RO-6-73.

RO-6-81 The comment refers to the 2012 Jamul/Dulzura Evacuation Final Study, which is included as Exhibit 21 to this comment letter. The comment also states the 2019 Recirculation Package's "analysis of the fire evacuation risk is utterly deficient."

In response, Alternative H meets all applicable fire code requirements for access including dead end road lengths and secondary access. In addition, Otay Lakes Road will be improved from an existing two-lane road to four travel lanes from City of Chula Vista to the proposed Project second roundabout. Roadside fuel modification zones will also be provided. Please see Response to Comment RO-6-73.

In regard to the Evacuation Route Study prepared by Fehr & Peers traffic consultants (2012) for Jamul/Dulzura, the study evaluated existing conditions and potential enhancements and new routes, ranking them based on a variety of attributes. The study did not contemplate the portion of Otay Lakes Road near the proposed Project as an evacuation corridor for Jamul/Dulzura due to its location, which would require residents of those communities to travel out of their way to access Otay Lakes Road.

RO-6-82 The comment provides a conclusion to evacuation-related comments RO-6-73 through RO-6-81 above. The comment also references a court case (Sierra Club v. County of Fresno) and states "the EIR fails as an information document." See Response to Comment RO-6-73.

RO-6-83 The comment states the 2019 Recirculation Package's analysis of the proposed Project's impacts on water supply and water resources is inadequate. The comment also refers to the Water Supply and Verification Report (Appendix D-18) of the 2019 Recirculation Package. As stated in Appendix D-18, there is adequate water supply for Alternative H. Further, the Water Conservation Plan (Appendix VI to the Alternative H Specific Plan Amendment) and the DEIR (2015) and 2019 Recirculation Package contain water conservation measures that will be implemented by the proposed Project or any of its alternatives. The DEIR (2015) has adequately addressed all applicable significance criteria required by the County related to water supply impacts.

RO-6-84 The comment provides a summary of case law related to water supply. The comment also states that "the long-term nature of the Project does not excuse an adequate water supply analysis." The County agrees. The Water Supply and Verification Report (Appendix D-18) provides an adequate analysis of Alternative H water demands and available supplies for this usage, based on best available data from the regional water agencies.

The impacts analyzed under CEQA related to water supply relate to the construction of new or expanded facilities, and the impacts related to the construction of those facilities. As disclosed in the 2015 DEIR, impacts related to water supply are less than significant. The proposed Project or any of its alternatives would receive water from a variety of regional water suppliers, one of which prepared a Water Supply and Verification Report for the proposed Project and Alternative H (Appendix C-8 and D-18, respectively). These regional water suppliers are responsible for securing water supplies within their jurisdiction. The proposed Project itself is not responsible for identifying water supplies for regional water suppliers and is therefore not required to identify potential impacts associated with those supplies. Further, the Water Supply and Verification Report (Appendix D-18) relied upon the available information at the time it was written, which included projections out to 2040. It would likely produce inaccurate projections for the proposed Project to attempt to project beyond this date.

RO-6-85 The comment states "limiting the water supply analysis to projections through 2040 is especially problematic given the growing evidence that climate change will cause severe droughts." The comment also refers to Exhibit 25 to the comment letter, which provides an article that discusses anthropogenic warming and its effect on drought risk. Section 2.10, Global Climate Change, of the 2019 Recirculation Package discusses potential impacts to water supply as a result of climate change in Section 2.10.1.3. The County has also provided the Water Conservation Plan, Appendix VI to the Specific Plan Amendment, which outlines ways to reduce the proposed Project's and Alternative H's water consumption.

RO-6-86 The comment states the 2019 Recirculation Package must acknowledge the potential for long-term drought-induced deficits in California's water supplies for the state, identify measures that could supply the water supply for the proposed Project, and evaluate the impacts of obtaining that new water supply. In response, the proposed Project itself is not responsible for negotiating and securing its own water supplies; therefore, neither the 2015 DEIR nor the 2019 Recirculation Package needs to identify supplemental water sources under future drought conditions. This is the responsibility of the water purveying agency, as they are charged for providing water to those that fall within their jurisdiction. As stated in the Water Supply and Verification Report (Appendices C-18 and D-18), water demand from the proposed Project or its alternative can be met.

RO-6-87 The comment states that while the Water Supply Assessment and Verification describes existing and proposed water supply projects, it does not disclose the relationship between the water supply projects and the ability to meet the proposed Project's water demands. In response, water supplies will be confirmed prior to occupancy of the proposed Project. It is responsibility of the water agencies to determine the appropriate allocations of water from various water supply projects and is not at the discretion of this proposed Project. The water agencies have determined that they have adequate supply for the proposed Project or any of its alternatives, as noted in the service availability letters from Otay Water District dated 7/25/2019 and 5/21/2018, included in Appendix D-19 of the 2019 Recirculation Package.

RO-6-88 The comment refers to text in the 2019 Recirculation Package and states that in order to obtain permanent imported water resources and supply service, the proposed Project would be

required to annex into the Otay Water District, the Water Authority, and the MWD. The comment further states the 2019 Recirculation Package fails to disclose that the 2015 UWMP does not account for the proposed Project because the Project site is not within MWD's boundaries. The comment also states the DEIR appears to have relied on the SANDAG forecast adopted in 2013. In response, the annexation of the proposed Project or any of its alternatives into Otay Water District's service area would be required. Otay Water District has issued a service availability for water, signed most recently on July 24, 2019 (see Appendix C-19 and D-19). The 2015 DEIR relies on SANDAG forecasts from 2013 because that was the best available data at the time the document was written. That portion of the 2015 DEIR was not recirculated, and therefore it is still appropriate to rely upon this data.

RO-6-89 The comment states the 2019 Recirculation Package does not provide the required evidentiary support that the Water Authority has water supplies sufficient to serve the proposed Project. Please see Response to Comment RO-6-87.

RO-6-90 The commenter states the lack of certainty of future water supplies. The comment states the 2019 Recirculation Package likely overstates the amount of water supply that these agencies will have in future years. The commenter states that the San Diego County Water Authority and Metropolitan Water District have not updated their water supply documents. Water supplies will be confirmed prior to proposed Project occupancy. This is outside the purview of this project-specific analysis, which relies on the best available data at the time.

RO-6-91 The commenter comment states there is no assurance that the Carlsbad Desalination Plant will be a reliable source of water. The comment also states that Appendix D-18 of the 2019 Recirculation Package projects the desalination plant will provide up to 56,000-acre feet of water per year. In response, this is outside of the purview for this project-specific DEIR. It is the responsibility of the water-providing agencies to determine the specific allocations of water supplies for individual areas. As stated in the Water Supply Assessment and Verification Reports for the proposed Project and Alternative H (Appendices C-18 and D-18, respectively), there is adequate water supply for the proposed Project and any of its alternatives. Determining the specific water mix or analyzing the effectiveness of a single source of water is not required.

RO-6-92 The commenter notes that the comment refers to discussion of the Otay Water District's water supply development in the 2019 Recirculation Package. The comment then states the "2019 Recirculation Package lacks evidentiary support that these water projects will be implemented or that, even if implemented, would generate sufficient water to meet the proposed Project's water demand." In response, while some specific water supply projects may be in the planning stage, the proposed Project can still contribute its financial fair share to the water supply projects. Planning for water supplies is part of the process that water agencies must go through in order to physically supply water to its constituents; therefore, it is not unreasonable that some water supply projects are still in the planning phase. The proposed Project will be in operation over the long term, so these planned water supplies may still be used and necessary later on in the proposed Project's life cycle.

RO-6-93 The commenter states the 2019 Recirculation Package offers no data, or any other factual support, to show sufficient details on how the DEIR preparers arrived at the demand and supply

projections. The comment further states these water supply data appear to be "entirely theoretical." In response, water supplies and demand are projected out through 2040. Demand is calculated based on land uses of the proposed Project, as shown in Table 1, and supply is provided by water agency documents and projections. OWD has provided sufficient information in the WSA&V Report that adequate water supplies can serve the demands of the proposed Project or any of its alternatives.

RO-6-94 The commenter offers a summary of the previous statements and does not provide additional new information. Please see Responses to Comments RO-6-84 through RO-6-93.

RO-6-95 The commenter notes that the DEIR fails to analyze cumulative impacts associated with providing water for the proposed Project. In response, the 2015 DEIR analyzes potential cumulative impacts associated with water supply in Section 3.7.3.1. See Responses to Comments RO-6-83 through RO-6-93 for additional information.

RO-6-96 The comment states "even if the EIR were correct in its assessment that the project-specific water supply impacts would be less than significant, this does not excuse the EIR from identifying and analyzing cumulative water supply impacts." In response, the 2015 DEIR analyzes potential cumulative impacts associated with water supply in Section 3.7.3.1. See Responses to Comments RO-6-83 through RO-6-93 for additional information. **RO-6-97**

The comment states the EIR should first determine whether cumulative impacts to a resource are significant, and then determine whether the proposed Project's impacts are cumulatively considerable. The comment then states the EIR failed to consider the proposed Project's impacts in the context of the cumulative problem. In response, this comment addresses the cumulative impacts analysis provided in Section 3.7.3.1 of the 2015 DEIR. Section 3.7 of the DEIR was not recirculated for public review. As stated in the Recirculation Reader's Guide, interested persons and organizations had an opportunity during the original public review period to submit comments on the 2015 DEIR. Responses to comments on the 2015 DEIR are provided as part of this FEIR. Therefore, no further response is provided.

RO-6-98 The comment addresses the cumulative water supply impact analysis in the 2015 DEIR. Please see Response to Comment RO-6-97.

RO-6-99 The comment states a revised cumulative water supply analysis should be prepared and acknowledge development projects since the DEIR was published in 2015. In response, the baseline conditions from the 2015 DEIR would still remain the same. Therefore, the 2015 DEIR analysis regarding cumulative water supply impacts does not need to be updated or recirculated.

RO-6-100 The comment states the DEIR fails to adequately analyze or mitigate the proposed Project's energy impacts. The comment also provides introductory information on the transportation sector and states the number of trips generated by the proposed Project, provided in the DEIR (2015). This comment serves as an introduction to comments that follow. Therefore, no further response is provided.

RO-6-101 The commenter is comparing the amount of fuel consumption between Village 14 and Village 13. The comment states that "although the Project would result in a "massive increase in vehicular travel, the DEIR fails to identify the Project's gasoline and diesel consumption." The comment also compares the VMT for cars and trucks to Village 14. The impact of this assumption is analyzed in Section 2.10, Global Climate Change, of the 2019 Recirculation Package. This included a GHG emissions inventory and mitigation measures to reduce emissions to net zero. For additional details on comparing Villages 13 and 14, please see Responses to Comments RO-4-15, RO-4-16, and RO-4-60.

RO-6-102 The comment states the reasons identified in the EIR as to why the increase in fuel consumption would not result in an inefficient and wasteful use of a nonrenewable resource are "unavailing." The comment serves as an introduction to comments that follow. Please see Responses to Comments RO-6-103 through RO-6-107.

RO-6-103 The comment refers to Section 3.9 of the 2015 DEIR and states even if 20 percent of the proposed Project's trips would stay internal to the Project site, generation of 21,916 trips per day cannot be considered a project that uses energy efficiently. In response, this comment discusses the Section 3.9, Energy Use and Conservation of the 2015 DEIR, which was not recirculated and not included for public comment during this recirculation period. Further, the commenter references an incorrect number VMT per year (77 million VMT/year, rather than 68 million VMT per year, as stated in Section 3.9.2 of the DEIR). However, the 2015 DEIR and 2019 2019 Recirculation Package include mitigation measure M-GCC-1, which would reduce VMT, in addition to other energy consumption mitigation measures and the Energy Conservation Plan.

RO-6-104 The comment states the proposed Project includes design measures to enhance walkability;; however, they would have a nominal effect on VMT and fuel consumption. The comment also states a project location close to a major employment center and a comprehensive transit network would substantially reduce VMTs, but the DEIR does not disclose where most of the proposed Project's residents would be employed and there is no indication any transit exists in the area. In response, since the original circulation of the 2015 DEIR, a new project alternative was developed, Alternative H. To help reduce VMT, Alternative H will develop a mobility hub, which includes EV charging stations, ride hailing loading zones, designated micro mobility parking areas, and privately owned bicycle parking areas. While transit services are not currently planned for the Project site, should SANDAG or the San Diego Metropolitan Transit System (MTS) desire to expand transit services to the Project area, the mobility hub will serve as a central transit center for the proposed Project. In the meantime, the Project HOA will coordinate with ride-share services to provide discount codes for ride-share-pooled services such as Uber-pool or Lyft-pool to the Otay Ranch Town Center transit station for those using the ride-share-pool services during commute peak hour. The Otay Ranch Town Center transit station, which provides service to the Bus Rapid Transit line 225, a convenient BRT connection to Downtown San Diego, is located less than 4 miles from the Project site.

RO-6-105 The comment cites part of the 2015 DEIR that was not recirculated, stating that CAFE standards cannot be relied upon. This portion of the DEIR was not revised or included in the

2019 Recirculation Package. Therefore, the DEIR relies upon the best available data at the time it was written and was originally released for public review. Further, the proposed Project is not responsible for increasing fuel efficiency standards

RO-6-106 This comment states the EIR offers no measures to reduce the proposed Project's petroleum consumption, and "it epitomizes the definition of a wasteful use of energy, constituting a significant impact." Please see Response to Comment RO-6-103.

RO-6-107 The comment states the DEIR must evaluate the feasibility of the following additional mitigation measures. Responses to each measure have been provided below.

Installing electric vehicle (EV) charging stations in the residential and commercial components of the Project.

Mitigation measure M-GCC-6 and Energy Conservation Plan EDC 6.15 require all residential garages to include a dedicated 208/240 branch circuit to facilitate the installation of zero emission vehicle charging infrastructure. Additionally, this same mitigation measure and EDC require the installation of: (i) one Level 2 EV charging station in the garage of 50 percent of all residential units; (ii) 10 Level 2 EV charging stations within the non-residential parking areas located on the Project site; and (iii) 10 Level 2 EV charging stations for vehicles utilizing public street parking spaces on street blocks located adjacent to non-residential development areas.

Provide preferential parking locations for EVs and compressed vehicles.

An additional requirement to provide on-street EV charging stations abutting non-residential areas has been included for Alternative H. The growth in electric vehicles in comparison to compressed gas vehicles justifies focusing solely on infrastructure for charging electric vehicles.

Implement parking cash-out program for non-driving employees.

Per the California Environmental Protection Agency Air Resources Board California's Parking Cash-Out Program an Informational Guide for Employers (https://ww3.arb.ca.gov/planning/tsaq/cashout/cashout_guide_0809.pdf), a parking cash out is required per state law for all employers that employ at least 50 persons and subsidize employee parking that they don't own (page 3). Since the proposed Project owns its onsite parking and is not charging for employee parking, a parking cash out is not required. With that said, the proposed Project could encourage tenants to set up incentive programs for non-driving employees.

Implement a carpool/vanpool program.

As stated in the Transportation Demand Management (TDM) evaluation, which is available as a part of the 2019 Recirculation Package, the Home owners' Association will designate a transportation coordinator who will promote carpool / van pool opportunities as well as SANDAG's iCommute program to encourage carpooling to and from the Project site.

Provide subsidies or incentives to employees who use public transit or carpooling.

The Energy Conservation Plan includes EDCs 6.21 and 6.22 to implement ride-sharing and commute trip reduction marketing in lieu of cash incentives. Please see Response to Comment RO-4-104 above in regard to discounted ride-share-pool services during commute peak hour.

Provide direct, safe, attractive pedestrian access from project to transit stops and adjacent development.

There is no immediate adjacent development or existing transit stops within the Project site;; however, the site utilization plan identifies a future transit within the Village Core, should MTS determine a need for such stop. The Energy Conservation Plan includes EDC 6.18 to implement pedestrian access network to link uses and pedestrian facilities onsite.

Connect bicycle lanes/paths to city-wide network.

The Energy Conservation Plan includes EDC 6.20 to implement pedestrian and bicycle trails into the proposed Project. Alternative H will construct Class II bike lanes and a multi-use path along Otay Lakes Road, between the eastern Project limit and Wueste Road in the City of Chula Vista.

Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, etc.

The Project site is not currently served by public transit. See Response to Comment RO-6-104.

Provide a display case or kiosk displaying transportation information in a prominent area accessible to employees.

The Energy Conservation Plan includes EDC 6.21, which requires providing a website or message board for coordinating rides.

Provide shuttle service to food service establishments/commercial areas.

The Village Core/Mixed-Use area is centrally located and easily accessible by walking and biking (see exhibit Proximity of Homes to Parks, HOA Facility, and Village Core/Mixed-Use Area), which avoids the need for a shuttle service and the associated greenhouse gas emissions.

Provide shuttle service to transit stations/multimodal centers.

Please see Response to Comment RO-6-61 regarding the discounted ride-share-pool services that will be provided by the HOA to residents.

Implement home-based telecommunicating program, alternate work schedules, and satellite work centers.

As stated previously, the proposed Project and its alternatives will participate in the iCommute program. Alternate work schedules and telecommuting is not controlled by project, but rather the individual employers, so this is an infeasible solution. A satellite work center is not proposed as part of this proposed Project; however, homes will be well equipped to be used as home offices.

Construct renewable energy sources sufficient to offset the equivalent of 100% of all greenhouse gas emissions from mobile sources (internal combustion engines) for the entire Project.

EDC UT-ED-20 requires all single-family residential units to be designed to facilitate the installation of solar water heating, and EDC UT-ED-21 requires connections for the future installation of photovoltaic or other renewable energy source. Mitigation measure M-GCC-4 requires that all single-family homes be ZNE, and M-GCC-8 requires the proposed Project to offset all operational greenhouse gas emissions by the purchase and retire of carbon offset credits.

RO-6-108 The comment restates information presented in Section 2.2, Air Quality, of the 2015 DEIR, including information pertaining to the air basin's criteria pollutant attainment status and information regarding the proposed Project's criteria pollutant threshold exceedances as a result of construction and operational activities.[15] After stating that the EIR "correctly concludes that these emissions would result in a significant impact to regional air quality," the comment states that the analysis in the 2015 DEIR is insufficient because it does not explain the nature and magnitude of these long-term air quality effects.

The Air Quality Section of the 2015 DEIR was not recirculated for public review and comment as part of the 2019 Recirculation Package. Also, the County's "Recirculation Readers Guide" specifically directed reviewers to "limit their comments to the revised chapters or portions of the recirculated EIR only" in accordance with the CEQA Guidelines Section 15088.5(f)(2). Nonetheless, the County responds to the subject comment below.

On December 24, 2018, more than 3 years after release of the 2015 DEIR, the California Supreme Court issued its decision in *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 (hereinafter, the Friant Ranch decision). Of relevance to this comment, the Supreme Court held that an EIR should "relate the expected adverse air quality impacts to likely health consequences or explain in meaningful detail why it is not feasible at the time of drafting to provide such an analysis, so that the public may make informed decisions regarding the costs and benefits of the Project." (Id. at p. 510.)

In response to this comment and in light of the Friant Ranch decision, an additional technical memorandum was prepared to address comments on the potential health effects from Project-related criteria pollutant emissions. This memorandum, titled *Health Effects of Criteria Pollutants, Otay Ranch Village 13,* is provided in Attachment A4.1 of the Responses to Comments. The memorandum concludes that no modeling tools presently are available that could provide reliable and meaningful additional information regarding the potential health effects of the proposed Project's criteria pollutant emissions or the proposed Project's potential

[15] Of note, Section 2.2, Air Quality, of the Final EIR contains an additional mitigation measure that requires the use of architectural coatings meeting the requirements of South Coast Air Quality Management District Rule 1113. With implementation of this mitigation measure, VOC impacts during construction were reduced to below the screening-level thresholds. (See Attachment RO6.3 to this Response to Comment, which contains a copy of SRA's *Construction-Related Architectural Coatings, Otay Ranch Village 13* technical memorandum.)

Also, further technical analysis was prepared for inclusion in the FEIR regarding the potential for impacts associated with CO emissions; that analysis concluded that no exceedances of the CO ambient air quality standards would result from the proposed Project. (See Attachment RO6.4 to this Response to Comment, which contains a copy of SRA's *CO "Hot Spots" Analysis, Otay Ranch Village 13* technical memorandum.)

to result in further nonattainment days. Notably, this conclusion is consistent with information reported in the 2015 DEIR. More specifically, as provided on pages 2.2-7 and 2.2-8 of Section 2.2, Air Quality, "The number of future daily exceedances of the CAAQS or NAAQS attributable to emissions from any singular project are difficult, if not impossible, to predict at this time because of the many variables influencing air pollutant concentrations (e.g., background concentrations, meteorology and weather patterns, effectiveness of regulatory programs, and availability of predictive computer models)."

For purposes of this response, it also is noted that the ambient concentration of criteria pollutants is a result of complex atmospheric chemistry and emissions of pollutant precursors and direct emissions. (NOx and VOC are precursors to ozone, and NOx, VOC, and SOx are precursors to secondarily formed $PM_{2.5}$.) Chemical and physical processes transform some precursors to the criteria pollutant concentrations in the atmosphere. However, the calculation of ozone and secondary $PM_{2.5}$ concentrations resulting from precursors is dependent on the spatial location of the criteria air pollutant emissions and how the emissions are dispersed in the atmosphere. Source apportionment, or the practice of deriving information about pollution sources and the amount they contribute to ambient air pollution levels, is also influenced by the meteorological conditions of the project location.

Notably, a specific mass of precursor emissions does not equate to an equivalent concentration of the resultant ozone or secondary particulate matter in that area. The resulting concentration of criteria pollutants is influenced by sunlight, other pollutants in the air, complex reactions, and transport. The dispersion is based on the meteorological conditions of the source (the project), local terrain (elevation profile), and the height and size of the source. The surrounding land use, wind direction, and wind speed will influence the location where the project emissions disperse. Meteorology, the presence of sunlight, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone or particulate matter formed by emissions of precursors.

The resulting health effects are further based on a complex relationship of multiple variables and factors. The calculated health effects are dependent upon the concentrations of pollutants to which the receptors are exposed, the number and type of exposure pathways for a receptor, and the intake parameters for a receptor, which vary based upon age and sensitivity (i.e., presence of pre-existing conditions). Health effects would be more likely for individuals with greater susceptibility to exposures, and also dependent on the location of receptors relative to the project site impacts whether receptors are exposed to project-related pollutants.

Please refer to **Appendix C-26** for additional information regarding the health effects of criteria pollutants, the scientific complexities associated with the formation of ozone as a result of secondary pollutants, and the technical feasibility of correlating project emissions to specific health effects or numbers of nonattainment days.

RO-6-109 The commenter is raising issues with human health and exposure to pollutants. The County directs the commenter to see Response to Comment RO-6-108.

RO-6-110 The comment states that the 2015 DEIR failed to adequately analyze the proposed Project's potential to expose nearby sensitive receptors to substantial toxic air contaminant (TAC) emissions. In response, the Section 2.2, Air Quality, of the 2015 DEIR was not recirculated for public review and comment as part of the 2019 Recirculation Package. Also, the County's "Recirculation Readers Guide" specifically directed reviewers to "limit their comments to the revised chapters or portions of the recirculated EIR only" in accordance with CEQA Guidelines Section 15088.5(f)(2).

It is noted, however, that the 2015 DEIR provided a screening health risk assessment in Section 2.2 based on applicable guidance at the time of its preparation. The analysis presented in the DEIR evaluated impacts to offsite sensitive receptors during the duration of the construction period and concluded that impacts would be less than significant.

RO-6-111 The comment restates the significance findings presented in the 2015 DEIR as those findings pertain to TAC emissions and indicates that the analysis in the 2015 DEIR contained at least two flaws. This comment serves an introduction to comments that follow. Please see Responses to Comments RO-6-112 through RO-6-114.

RO-6-112 The comment states that the 2015 DEIR focuses exclusively on the toxic air contaminant (TAC) emissions during the proposed Project's construction phase, and that it failed to consider the TAC emissions that would be generated by the proposed Project's operational sources when considering health risk impacts. In response, Section 2.2, Air Quality, of the 2015 DEIR was not recirculated for public review and comment as part of the 2019 Recirculation Package. Also, the County's "Recirculation Readers Guide" specifically directed reviewers to "limit their comments to the revised chapters or portions of the recirculated EIR only" in accordance with the CEQA Guidelines Section 15088.5(f)(2). Nonetheless, the County responds to the subject comment below.

The analysis presented in the 2015 DEIR addressed the main source of diesel particulate emissions from the proposed Project: construction-related emissions from heavy-duty equipment and trucks. As discussed in Section 2.2.2.3 of the 2015 DEIR, the primary TAC for land development projects is diesel particulate matter. While the proposed Project would result in minor quantities of PM emissions from area sources and energy use, these sources of PM are not attributable to diesel-powered sources; it is therefore not appropriate to include the minor PM emissions from area sources and energy use in an analysis of impacts from diesel particulate emissions. Project operations also would result in minor amounts of diesel truck traffic due to deliveries; however, residential/mixed use projects such as the proposed Project do not generate substantial amounts of diesel particulate matter from operations.

Nevertheless, further technical analysis has been prepared in response to this comment. More specifically, a technical memorandum, titled *Health Risk Assessment for Construction and Operational Impacts, Otay Ranch Village 13*, is provided in Attachment RO6.5 of these Responses to Comments. This memorandum affirms the 2015 DEIR's conclusion that health risk impacts attributable to the proposed Project would be less than significant.

RO-6-113 The comment states that the 2015 DEIR "relies on outdated health risk methodology and therefore understates" project impacts as a result of TAC emissions. As stated in Response to Comment RO-6-112, Section 2.2, Air Quality, was included in the 2019 Recirculation Package and a response is not required to this comment. The County notes, however, that the 2015 DEIR provided a screening health risk assessment in Section 2.2 based on applicable guidance at the time of its preparation. The County acknowledges that California's Office of Environmental Health Hazard Assessment has updated its technical guidance since publication of the 2015 DEIR. The additional technical memorandum contained in Attachment RO6.5 utilizes the latest guidance and, as indicated above, affirms the 2015 DEIR's conclusion that health risk impacts attributable to the proposed Project would be less than significant.

RO-6-114 The comment states "it is imperative that the EIR be revised to include a new Health Risk Assessment relying on current OEHHA guidance." Please see Response to Comment RO-6-113 above for responsive information. As the additional analysis referenced therein affirms the significance findings of the 2015 DEIR, further consideration of mitigation measures or alternatives is not triggered by the results of the analysis.

RO-6-115 The comment states the DEIR's analysis of the proposed Project's alternatives is inadequate. The comment then provides a summary of case law related to alternatives analysis. The commenter further states that the 2019 Recirculation Package fails to comply with the provided mandate. In response, the comment does not provide a specific explanation of why the DEIR's analysis of alternatives is inadequate. This comment serves as an introduction to comments that follow. Please see to Comments RO-6-116 through RO-6-123 below.

RO-6-116 This comment provides a summary of the CEQA Guidelines as they relate to alternatives analysis. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-117 The comment states the 2019 Recirculation Package identifies significant and unavoidable proposed Project impacts for visual resources, air quality, and traffic. While impacts to aesthetics would remain significant and unavoidable for all proposed Project alternatives, all alternatives would have similar or less of an impact than the proposed Project due to reduced Project footprints. All alternatives (with the exception of Alternative B) would have less than or similar impacts related to air quality and traffic when compared to the proposed Project. The comment then states that except for the No Project Alternative, none of the alternatives would reduce any of these impacts to a less than significant level. The comment further states Alternative B would increase the proposed Project's air quality and traffic impacts, and therefore does not contribute to a reasonable range of alternatives. While Alternative B may have greater impacts than the proposed Project for some resource areas, it has fewer impacts in others, such as global climate change. Therefore, Alternative B can still be considered part of a reasonable range of alternatives. The 2019 Recirculation Package provides a reasonable range and discussion of alternatives for the proposed Project. Even omitting Alternative A, there are seven other Project alternatives analyzed in detail that reduce the proposed Project's environmental impacts.

RO-6-118 The comment states that the newly proposed Alternative H would be more environmentally damaging than the proposed Project. In response, the comment does not state why Alternative H would be more damaging. As discussed in Chapter 4.0 Project Alternatives of the 2019 Recirculation Package, Alternative H would have less than or similar impacts to the proposed Project for all issue areas.

RO-6-119 The commenter states that despite almost identical development footprints and similar amounts of conserved land, the 2019 Recirculation Package arrives at different conclusions for Alternative B and Alternative H. The comment further states the conclusions regarding Alternative H are based on a faulty analysis. In response, while the development footprints between Alternative H and Alternative B are similar, there are fundamental differences between the alternatives as summarized below and described in Chapter 4.0. Under Alternative B, Otay Lakes Road would be realigned through the middle of the Project site, while Alternative H retains the existing alignment with some minor adjustments. Alternative B includes a 141.5-acre golf course, while Alternative H does not include a golf course. Alternative B includes a much larger resort use compared to Alternative H (134.4 acres vs. 16.6 acres, respectively). Finally, Alternative B proposes 530 single-family homes and 1,408 multi-family homes, while Alternative H proposes 1,881 single-family homes and only 57 multi-family homes. The golf course and larger resort would lead to an increase in traffic noise, air quality, and global climate change impacts. Lands that are preserved in the Vernal Pool area and Thornmint preserve under Alterative H would be impacted by the resort and gold course under Alternative B, leading to greater impacts to biological resources. Therefore, it is reasonable and accurate to state that impacts to air quality, biological resources, noise, traffic, and global climate change would be less under Alternative H than Alternative B as the type of use must be considered in the analysis, not just the development footprint.

RO-6-120 The comment states that Alternative G is the Environmentally Superior Alternative and it meets the proposed Project's objectives. The comment also provides a summary of the CEQA Guidelines as they relate to alternatives analysis. This comment serves as an introduction to comments that follow. Please see to Comments RO-6-121 through RO-6-123.

RO-6-121 The comment provides a summary of Alternative G, provided in Chapter 4.0 of the 2019 Recirculation Package. The comment does not raise an issue regarding the adequacy of the environmental analysis;; therefore, no further response is provided.

RO-6-122 The comment states that only one alternative (Alternative G) would clearly lessen proposed Project impacts, although three impacts would remain significant and unavoidable. The comment then lists the proposed Project's objectives from the DEIR (2015). The County agrees that Alternative G is the environmentally superior alternative, as stated in Chapter 4.0 of the 2019 Recirculation Package. However, Alternative G would not include a public safety site or elementary school site, and Alternative G would reduce the number of dwelling units by 1,473. Alternative G includes only 465 single-family dwelling units and no multi-family units. Alternative G would also provide only 4.3 acres of park space, while the proposed Project would provide 28.6 acres. Therefore, Alternative G does not meet the following Project Objectives:

- Create a prestigious destination resort that maximizes unique South County open space, high-terrain, and views of the reservoir within a distinct, predominantly single-family home community, and allow first-time buyers and others to transition to distinct, high-quality homes within Otay Ranch;
- Establish an executive-level, "specialty" housing enclave within Otay Ranch that attracts business owners and employers within both the Otay Ranch and Otay Mesa planned business parks, urban centers, and university uses, thereby providing this segment of the housing community with opportunities to live and work in South County;
- Create increased housing diversity within Otay Ranch by balancing higher densities associated with Otay Ranch's multi-family development with lower density, predominantly single-family homes to ensure a balance of housing opportunities in South County, consistent with the Otay SRP;
- Ensure public facilities are provided in a timely manner and financed by the residents and occupants, and thereby ensure no adverse fiscal consequences to other neighboring communities within Otay Ranch;
- Relocate the Otay Ranch Village 15 elementary school site to the Otay Ranch Resort Village in order to create a neighborhood elementary school environment within the village core and thereby enhance the self-sufficiency of the Project's land use plan;
- Provide a continuous public trail system through the community, with access to the resort, the village core, mixed-use area and surrounding trails, including the California Riding and Hiking Trail; and
- Provide for a neighborhood park system that provides a variety of active recreational opportunities within walking distance of all planned neighborhoods.

RO-6-123 The comment states that because Alternative G would achieve most, if not all, of the Project objectives, approval of the proposed Project or any alternative with greater impacts than Alternative G would violate CEQA. In response, as stated in RO-6-122 above, Alternative G does not meet seven of the 13 Project objectives. The County decision makers will decide which alternatives are feasible after taking into consideration Project objectives and specific economic, legal, social, technological, or other considerations, and ultimately select one for approval based upon the proposed Project's Findings and Statement of Overriding Considerations.

RO-6-124 The comment states the DEIR (2015) must be recirculated. The comment also provides a summary of the CEQA Guidelines as they relate to recirculation. The comment does not provide an explanation why the DEIR should be recirculated; therefore, no further response is provided.

RO-6-125 The comment states the DEIR (2015) and 2019 Recirculation Package understate the proposed Project's significant environmental impacts and the assumptions are flawed. The commenter does not provide specific examples of how the DEIR (2015) or 2019 Recirculation Package understate project impacts or contains ineffective mitigation measures. Therefore, no further response is provided.

RO-6-126 The comment states approval of the proposed Project would be inconsistent with the General Plan. The comment also provides a summary of the State Planning and Zoning Law (Gov. Code §65000 et seq.) and associated case law. In response, the comment does not provide an explanation of why approval of the proposed Project would be inconsistent with the County's General Plan. Therefore, no further response is provided.

RO-6-127 The comment states the General Plan requires all large-scale project requiring a general plan amendment to provide an affordable housing component. The comment also states the proposed Project would defy this provision because it promotes "executive housing" rather than affordable housing. However, this proposed Project site was designated in the 1993 Otay Ranch PEIR to include executive housing. The proposed Project is consistent with the General Plan and the Otay Ranch GDP/SRP, and the proposed General Plan Amendment is unrelated to density or intensity of land use. The proposed Project as originally envisioned, and as needed today, is designed to provide executive-level housing within the larger Otay Ranch community, so as to provide employers and others with an opportunity to reside in South San Diego County where their businesses are located. This reflects the need to maintain Otay Ranch as a balanced community, which has been impacted by an overall increase in multi-family housing and the loss of single-family homes in Village 15 due to its acquisition by a public agency for conservation. Further, several multi-family units will be located onsite, providing diversity to the housing mix within Village 13, and there is affordable housing throughout Otay Ranch.

RO-6-128 The comment states the Project proposes to amend the County General Plan by amending the Land Use Element, Mobility Element, Otay Subregional Plan, and Otay Ranch Resource Management Plan. The comment also states allowing "the Project to move forward without making any contribution to affordable housing would represent a missing opportunity for the County and its residents." In response, for clarification, the Otay Ranch Resource Management Plan is not a component of the County General Plan. This comment does not raise a specific issue regarding the adequacy of the 2019 Recirculation Package; therefore, no further response is provided. See Response to Comment RO-6-127.

RO-6-129 The comment states the County may not approve the proposed Project because it implicates inadequacies in the General Plan. The comment also provides a summary on case law associated with adequacy of general plan documents. The comment further states that the County's General Plan is deficient because it does not include an environmental justice element. The comment does not raise an issue regarding the adequacy of the environmental analysis;; therefore, no further response is provided.

RO-6-130 The comment provides a summary of SB 1000 and of the County's recent updates to its General Plan. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-131 The comment further discusses affordable housing, environmental justice elements in general plans, and the deficit of affordable housing in San Diego. The comment does not raise an issue regarding the adequacy of the environmental analysis;; therefore, no further response is provided.

RO-6-132 The comment states that the County cannot rely upon the authority of the General Plan to approve the proposed Project. The comment does not raise an issue regarding the adequacy of the environmental analysis;; therefore, no further response is provided.

RO-6-133 The comment provides a concluding statement. The comment does not raise a specific issue regarding the adequacy of the 2019 Recirculation Package; therefore, no further response is provided here.

RO-6-134 The comment provides a study prepared by Hamilton Biological, Inc., which was addressed in Response to Comment RO-6-9.

RO-6-135 The comment provides a vernal pool recovery plan prepared by the USFWS. The comment does not raise an issue regarding the adequacy of the environmental analysis;; therefore, no further response is provided.

RO-6-136 This comment provides an excerpt from the Village 14 EIR. The comment does not raise an issue regarding the adequacy of the environmental analysis;; therefore, no further response is provided.

RO-6-137 The comment provides a news article about tailpipe pollution. The comment does not raise an issue regarding the adequacy of the environmental analysis;; therefore, no further response is provided.

RO-6-138 The comment provides a news article about how San Diego should go about meeting state climate goals. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-139 The comment provides Calculation Details for CalEEMod. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-140 The comment provides the County of San Diego's General Plan Housing Element Background Report. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-141 The comment provides the City of San Diego Housing Inventory Annual Report. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-142 The comment provides a letter that reviews the greenhouse gas mitigation measures for Village 14. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-143 The comment provides a newspaper article about a lawsuit brought against the County of San Diego. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-144 The comment provides a study that investigates the Clean Development Mechanism. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-145 The comment provides a news article about carbon credits. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

TO-6-146 The comment provides California's 2017 Climate Change Scoping Plan. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-147 The comment provides Minute Order from the County of San Diego Superior Court of California. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-148 The comment provides a letter that addresses proposed General Plan Amendments in the County of San Diego. The letter was submitted outside of any formal comment period for Village 13. The letter largely addresses the County's General Plan, the overall County process and issues with other County EIR documents.

RO-6-149 The comment provides a chapter from the County of San Diego's Supplement to the 2011 General Plan Update Program EIR. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-150 The comment provides an article discussing carbon credits. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

TO-6-151 The comment provides a letter discussing the fire risks of Village 14. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-152 The comment provides a letter discussing the fire risks of Village 14. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-153 The comment provides a letter that reviews the Fire Protection Plan for Village 13. Please see Global Response R3: Structure Vulnerability and Ignition, as well as Responses to Comments RO-6-66 through RO-6-73.

RO-6-154 The comment provides the Jamul/Dulzura Evacuation Route Study Final Report. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-155 The comment provides a report on California's most significant droughts. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-156 The comment provides an article on California water records. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-157 The comment provides an article related to persistent drought and climate modeling. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-158 The comment provides an article on anthropogenic warming and its association with increased drought risk. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-159 The comment provides an article on anthropogenic warming and its association with increased drought risk. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-160 The comment provides a news article on drought. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-161 The comment provides a verified petition for writ of mandate from the County of Los Angeles Superior Court of California. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-162 The comment provides a report of the Carlsbad Desalination Plant. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-163 The comment provides the 2015 Urban Water Management Plan. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-164 The comment provides a section of the Newland Sierra Draft EIR. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-165 The comment provides a section of the Village 14 EIR. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-166 The comment provides the Safer Affordable Fuel-Efficient Vehicles Rule. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-167 The comment provides an article on the Trump Administration's attempt to repeal California's authority to regulate automobile greenhouse gas emissions. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-168 The comment provides the Risk Assessment Guidelines for Air Toxics Hot Spots Program. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-169 The comment provides a screenshot of the California Air Resources Board webpage. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

RO-6-170 The comment provides an article on high-end housing in San Diego. The comment does not raise an issue regarding the adequacy of the environmental analysis; therefore, no further response is provided.

Attachment RO6.1

DECISION ON PETITION FOR WRIT OF MANDATE

WRIT DENIED

FRIENDS OF THE SANTA CLARA RIVER, SCOPE (SANTA CLARA ORGANIZATION FOR PLANNING AND RESEARCH) v. COUNTY OF LOS ANGELES, et al, Case No. BS 170568 (Real Party in Interest, NEWHALL LAND AND FARMING COMPANY)

Newhall Ranch (the development arm of real party Newhall Land and Farming Company) applied for discretionary governmental approvals to develop parcels comprising 12,000 acres in Santa Clarita Valley in northwest Los Angeles County. The proposed development is to be built out as interconnected communities (described as "villages") and to include, when completed, more than 20,000 dwelling units, commercial and business uses, schools, parks, golf courses, fire stations and infrastructure.

A lawsuit was filed to stop the Newhall Ranch development because of its alleged non-compliance with the California Environmental Quality Act ("CEQA"), Public Resources Code § 21000 et seq.[1] That litigation raised important legal issues—the foremost being the level of significance and the mitigation required for the greenhouse gas (GHG) emissions generated in the construction and operation of the development.[2]

The Petitioners above—Friends of the Santa Clara River and SCOPE--filed this subsequent action in August, 2017 to challenge the action of the County of

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[1] Statutory references are to the Public Resources Code unless otherwise specified.

[2] The term "greenhouse gases" refers to gases emitted into the atmosphere that allow the sun's rays to enter the Earth's atmosphere, but trap the energy that is radiated back into space, thereby resulting in a warming of the atmosphere called the "greenhouse effect." The greenhouse gases are identified in Health & Safety Code section 38505(g). Carbon dioxide (CO2) has the greatest impact on global warming because of the relatively large quantities of CO2 emitted into the atmosphere. (SR1621.)

Los Angeles ("County") in approving under CEQA the environmental impact reports ("EIRs") prepared in the year 2011 for the Landmark Village and Mission Village projects. The projects are parts of and within the boundaries of the Newhall Ranch development. This Court discusses the earlier litigation because the issues therein decided are relevant to the present action.

The California Department of Fish and Wildlife (CDFW) Litigation.

The CDFW litigation (filed in 2011) challenged the approvals by the California Department of Fish and Wildlife of the Resource Management and Development Plan and the Spineflower Conservation Plan (the RMDP/SCP specific plan) for the Newhall Ranch development. The Supreme Court, in that litigation, issued a seminal decision interpreting California statutes and regulations concerning GHG emissions. Center for Biological Diversity v. California Department of Fish & Wildlife (2015) 62 Cal.4th 204. The Court held that the CDFW approvals made in reliance on the 2011 EIRs violated CEQA because CDFW's determination that the increase in GHG emissions from the proposed development over existing conditions was less-than-significant was "not supported by a reasoned explanation based on substantial evidence." Id. at 213. (The Court's other holdings are discussed below only if relevant to Petitioners' arguments.)

The Court of Appeal, in implementing the remand from the Supreme Court, issued two follow-up decisions. Center for Biological Diversity v. California Department of Fish & Wildlife (2016) 1 Cal.App.5th 452, 469 (Center for Biological Diversity II); and Center for Biological Diversity v. California Department of Fish & Wildlife (2017) 17 Cal.App.4th 1245. (Center for Biological Diversity III).

Newhall Ranch, in response to the court decisions, redesigned the development with the intent of mitigating the greenhouse gas emissions to a less-than-significant level. The developer, in the new plan, incorporated thirteen mitigation measures so that with the mitigation measures the development would not increase GHG emissions over existing conditions. The CDFW in re-analyzing the GHG emissions with the mitigation measures prepared a document known as the "Additional Environmental Analysis" (the "2017 AEA"). The CDFW upon reviewing the two documents—the 2017 AEA and the 2011 EIRs—determined that the increase in greenhouse gas emissions due to the development will be less-than-significant and that, thus, the development is CEQA-compliant as to GHG emissions. The CDFW, on June 24, 2017, re-approved the Newhall Ranch development. (SR 29188, 39226-39267.)

The two Petitioners herein (and others) challenged CDFW's determination upon re-approval that the GHG emissions with the mitigation measures were reduced to below the level of significance. The trial court (Judge John A.

Torribio, presiding) rejected their challenge on May 16, 2018. (AR Exh. AA: Proposed Order, LASC Case No. BS 131347.) Judge Torribio, in a 19-page decision and order, concluded:

> *The Court finds that the Department's approval of the Project as modified, including certification of the 2017 AEA, adoption of Supplemental Findings of Fact and Statement of Overriding Considerations, and approval of the Errata to the MMRP, fully comply with the Department's obligations under the Writ issued by this Court.*

No Petitioner appealed the trial court's decision. Judge Torribio's decision and order ended the litigation that challenged CDFW's certification of the program CEQA for the Newhall Ranch master plan development.[3] The two petitioners in the present action, Friends of the Santa Clara River and SCOPE, were petitioner parties in the CDFW litigation.

The County of Los Angeles Litigation.

New litigation was filed in 2012 to challenge the County's approvals for the construction of two village projects—Landmark Village and Mission Village—that are within the boundaries of the Newhall Ranch development.[4] Appeals in the Friends/Native Plant litigations were pending in the Supreme Court when Center for Biological Diversity I was decided, and the Supreme Court transferred those appeals to the Court of Appeal for reconsideration in light of Center for Biological Diversity II. The Court of Appeal, in turn, remanded the cases to the trial court to issue an appropriate writ of mandate under CEQA section 21168.9.

The trial court in the Friends/Native Plant cases (Judge Richard L. Fruin, presiding), on March 13, 2017, issued writs of mandate that targeted the parts of the 2011 EIRs that the Court of Appeal found to be deficient in analyzing the projects' GHG emissions. The appellate court, in later affirming the trial court, summarized the trial court's orders as follows:

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[3] "A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related [among other possibilities] (1) Geographically, (2) As logical parts in the chain of contemplated actions, ... (4) As individual actions carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways." CEQA Guidelines section 15168(a).

[4] Petitioner Friends of the Santa Clara River (Friends) challenged the approvals for Landmark Village (in LASC Case No. BS136549); and Petitioner California Native Plant Society (Native Plant) challenged the approvals for Mission Village (in LASC Case No. BS138001).

In both cases, the writs of mandate directed the County to (1) void certification on only those portions of the EIR analyzing the significance of GHG emissions; (2) suspend any project activity, including construction, until the County corrects the GHG discussion; and (3) suspend the County's CEQA Findings and Statement of Overriding Considerations and the Mitigation Measures and Reporting Plan (collectively, the CEQA Conditions) until they are corrected. The court specified that the CEQA Conditions were the only 'project approvals' that directly relate to the EIR's GHG emissions analysis, and so only those documents needed to be corrected. The remaining approvals ... were not affected by the Supreme Court and Court of Appeal decisions, and so "no remedial action is required unless compliance with this Writ changes or affects" them.

The writs the trial court issued were crafted to comply with CEQA section 21168.9. Section 21168.9 directs the trial court on remand to enter orders to address any determination that is not compliant with CEQA. If the circumstances do not require annulling the entirety of the agency's action, the trial court is authorized to issue limited orders. Section 21178.9, in subdivisions (a)(3) and (b), expressly authorizes such limited orders, providing as follows:

(a)(3) A mandate that the public agency take specific action as may be necessary to bring the [lead agency] determination into compliance with this division [that is, with CEQA].

(b) Any order pursuant to subdivision (a) shall include only those mandates which are necessary to achieve compliance with [CEQA] and only those specific project activities in noncompliance with [CEQA]. ... However, the order shall be limited to that portion of a determination ... found not to be in noncompliance only if a court finds [the noncompliant action is severable and] severance will not prejudice the project's complete and full compliance with [CEQA]...."

The writs issued in the Friends/Native Plant cases were appealed. The two cases were argued together, and the Court of Appeal, on July 12, 2018, issued nearly identical decisions in each case that affirmed the trial court's writ orders. See, Slip Op., Friends III, p.40.

The Present Action.

The above two Petitioners filed the present action (on August 17, 2017) to challenge the County's determination that the mitigation measures Newhall Ranch adopted to bring the Landmark and Mission projects into CEQA compliance have reduced the GHG emissions to less than significance. (They allege separately that the projects' water assessments are inadequate.)

Newhall Ranch, in response to the writ orders issued in the CDFW and County litigations, redesigned the Landmark and Mission projects to include mitigation measures to reduce GHG emissions to a less-than-significant level. The mitigation measures adopted for the Landmark Village project are virtually identical to those adopted for the Mission Village project. Moreover, significantly for this decision, the mitigation measures the developer adopted for the entire Newhall Ranch development are the same mitigation measures approved for the Landmark and Mission projects. Petitioners acknowledge this, saying in their Opening Brief (p.10: 20-22):

> *These two sets of mitigation measures are essentially identical to each other, and identical to the mitigation measures approved by CDFW for the RMDP/SCP Project for Newhall Ranch as a whole. (SR 1658-59; 30951-52.)*

The County complied with this Court's writ orders by deleting from the 2011 EIRs the analysis of GHG emissions for the Landmark/Mission projects; and by preparing the new "Recirculated Analysis" to re-analyze the GHG emissions with the developer's newly adopted mitigation measures. The developer re-designed the Landmark and Mission projects to incorporate thirteen mitigation measures (1) to reduce on-site the GHG emissions for the development (compared to the projects' original design) and (2) with respect to the GHG emissions the projects nonetheless will produce, to offset those emissions by funding measures to eliminate an equivalent of GHG emissions off-site including by the purchase of certified credits from the state's cap-and-trade program. The mitigation measures are designed to enable a reduction in GHG emissions in global GHG emissions in the amount of GHG emissions caused by the construction and operation of the Village projects. (SR 1778.) The mitigation measures for Landmark Village are identified as LV 4.23-1/2-1 through 4.23.-13/2-13 (SR1618-19); and for Mission Village, as MV 4.23-1/2-1 through MV 4.23-13/2-13 (SR30911-30911-12). These mitigation measures are calculated to achieve during a 30-year project life a Zero Net Energy (ZNE).[5] The County's analysis made in the "2017 Recirculated Analysis" for the projects' GHG emissions with the new mitigation measures was based on its consideration of the 2017 AEA (again, that the CDFW had prepared to analyze the GHG emissions for the entire development with the adoption of the same mitigation measures) and by its consultations with experts including specialists

[5] ZNE is defined by the California Energy Commission in its 2015 Integrated Energy Policy Report as "the value of the net energy produced by project renewable energy resources to equal the value of the energy consumed annually by the project using the CEC's Time Dependent Valuation metric."

from the Air Resources Board in GHG emission modelling and analysis and GHG emission strategies. (SR 45-46.)

The County, based on this independent study, concluded that once the new mitigation measures are included "potentially significant GHG impacts .... are reduced to less-than-significant levels ... and that the Project will feasibly and reliably achieve net zero GHG emissions...." (SR 52, 119.) The County, on July 18, 2017, certified the 2017 Recirculated Analysis and the 2011 EIRs as compliant with CEQA; adopted supplemental CEQA findings and a Statement of Overriding Considerations; and reapproved the land use entitlements. The County adopted separate resolutions to approve the Landmark Village and Mission Village projects. (Landmark, SR 9-15, Mission, SR 19-25.) The County's Resolution, for each project, certifies:

> *...the 2017 Recirculated Analysis, in combination with the 2011 Final EIR, was completed in compliance with CEQA...; certifies that it independently reviewed and considered the information in the 2017 Recirculated analysis, in combination with the 2011 Final EIR, and that the 2017 Recirculated Analysis, in combination with the 2011 Final EIR, reflects the independent judgment and analysis of the Board as to the environmental consequences of the Project; ...* (Landmark, AR 15, Mission, AR 25.)

The County also determined that there were no circumstances under section 21166 requiring the preparation of a new EIR and that the modifications to the 2011 EIRs did not require recirculation under CEQA Guidelines section 15088.5. (SR 75,141.) The County, in addition, adopted findings and approved specific acts as needed to authorize proceeding with the Landmark Village and Mission Village projects.

This Court rejects Petitioners' challenges to the County's determinations with respect to the Landmark Village and Mission Village projects for the reasons below.

1. CEQA DOES NOT REQUIRE THE PREPARATION OF A NEW EIR TO APPROVE A PROJECT ONCE A DEFICIENCY SPECIFIED IN A WRIT ISSUED UNDER CEQA SEC. 21168.9 IS CORRECTED

Petitioners contend that the County violated CEQA because it considered, separately for each project, the 2017 Recirculated Analysis "in combination" with the 2011 Final EIR. They argue that a lead agency must prepare and certify a new EIR in order to cure a CEQA deficiency that was addressed in the trial court's targeted writ of mandate issued under section 21169.9. Their counsel said: "For this to work there has to be a full, complete, self-consistent E.I.R. and the fact that the County was ordered by the courts to remedy certain defects in the 2011 E.I.R. does not relieve the County from CEQA's requirement to

produce a complete and consistent E.I.R. before reapproving the Project." (Writ Hearing, 9/15/18 transcript, pp. 50: 26-51:3.)

Petitioners argue that the County's certification that the projects as CEQA compliant must be annulled because the County's decision-makers looked to the 2017 Recirculated Analysis for a re-analysis of the GHG emissions after the adoption of the new mitigation measures rather than putting that information into updated versions of the 2011 EIRs. Petitioners make this argument in various guises, but the argument, whatever its format, is unsupportable under the appellate decisions specific to these projects and under CEQA. The argument, in the first place, flies in the face of the provisions in the writ orders previously issued that were affirmed in Friends III. There the Court of Appeal said:

> *Based on the plain language of section 21168.9 and the case law interpreting and applying its provisions, we conclude the section gives courts legal authority to issue a limited mandate that directs an agency to bring certain determinations or findings into compliance with CEQA while leaving the remaining decisions or approvals in place.*

Slip Op., Friends III, p. 20.

If the 2017 Recirculated Analyses in correcting the analysis for GHG emissions for the Landmark and Mission projects is sufficient, then nothing more is required than for the County to consider the 2017 Recirculated Analyses in combination with the parts of the 2011 EIR that were previously found sufficient. Any argument that these two documents must be reformatted in one document and then approved as a new EIR would derogate the provisions of section 21168.9 which permit a targeted writ directed at any issue found deficient under CEQA to permit the remedial overhaul of that same issue.

This very point was made by Judge Torribio in his May 16, 2018 decision and order ending the CDFW litigation. Judge Torribio decided the issue of whether a lead agency is required to embody a curative analysis imposed by a writ of mandate in a new EIR document. Judge Torribio held:

> *A court's review of a return to writ under CEQA is limited to a determination of whether the agency complied with the commands of the writ of mandate. (Pub. Resources Code, § 21168.9(b); Ballona Wetlands Land Trust v. City of L.A. (2011) 201 Cal.App.4th 455, 480 [trial court retains jurisdiction only to ensure compliance with the writ]; National Parks & Conservation Assn. v. County of Riverside (1999) 71 Cal.App.4th 1341, 1352 [on return to writ, court focuses on agency's compliance with the requirements of the previously issued writ].) In this case, the Writ ordered the [CDFW] to suspend certain project approvals and activities pending corrective modification of the EIR. (Pub. Resource[s] Code, §*

21168.0, subd. (a)(2); 14 C.C.R., § 783/7.) The [CDFW] has taken the necessary corrective action to address all deficiencies identified by the Supreme Court, as described in the Judgment and Writ.

In the CDFW case, the Department, in re-approving the project, reviewed the new analysis of GHG emissions as contained in the 2017 AEA and the 2010 EIR. Judge Torribio concluded that CEQA did not require the preparation of a new EIR document. This Court adopts the same analysis and conclusion in response to Petitioners' contention that the County was required to prepare new EIRs for the Landmark and Mission projects.

Petitioners frame the argument that the 2017 Recirculated Analysis and 2011 EIRs are improperly considered "in combination" in various ways. They assert that the Recirculated Analysis is missing an energy analysis required by CEQA Guidelines Appendix F. (Pet. Br., pp. 13-14); and that the energy analysis in the 2011 EIRs is "inconsistent" with the findings in the 2017 Recirculation Analysis. (Reply Br. pp. 9-10.) Petitioners also argue more generally that the County's approval of the Recirculated Analysis is noncompliant with CEQA because it does not analyze all factors required for an EIR. These arguments are variants of the same dispute, in that they assert that parts of a 2011 EIR that were not decertified must be incorporated into a new, updated EIR, to include the 2017 Recirculated Analyses, and then be resubmitted for approval.[6] That procedure is, for the reasons given above, not required under CEQA and is inconsistent with the writs that were issued in the CDFW litigation and in this action under CEQA section 21168.9.

Petitioners rely on CEQA Guidelines section 15090(a)(1) for their argument that any curative analysis must be contained in a new EIR document. (Reply Br., p. 9.) That section is a procedural provision. It specifies only that: "Prior to approving the Project, the lead agency shall certify that (1) the final EIR has been completed in compliance with CEQA." CEQA section 21168.9 establishes the specific procedure by which a part of an EIR may be decertified and the project held in abeyance until the lead agency revises its determination on deficient findings to comply with CEQA. The trial court's writs issued under section 21468.9 thus do not violate section 15090(a)(1), as Petitioners claim. The Court of Appeal, as mentioned above, affirmed this Court's writs with respect to the Landmark and Mission projects. The County has correctly followed the procedure provided in section 21168.9 to remedy its original failure to adequately address GHG emissions for those projects.

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[6] The danger in Petitioners' argument is that an EIR that is revised to correct a particular CEQA deficiency could be attacked on other grounds that were not raised in the original proceedings if a comment period was required for re-approval. The finality of an EIR certification of findings that were not challenged would be compromised.

2. SUBSTANTIAL EVIDENCE SUPPORTS THE CEQA DETERMINATION THAT THE PROJECTS WITH MITIGATION WILL GENERATE ZERO NET ENERGY

The County determined, in certifying the projects for CEQA compliance, that the GHG emissions from the projects, once mitigation measures are fully implemented, will be less than significant. As stated in the Recirculated Analysis:

> *Without considering mitigation, the Project would increase GHG emissions as compared to the existing environmental setting, which could result in potentially significant impact to global climate change. However, with implementation of the thirteen (13) mitigation measures recommended ... the Project would cause no net increase in GHG emissions. Because the Project, as mitigated, would result in no net increase in the GHG emissions level, the Project would have not significant impact on global climate change.* (SR 1618.)

Petitioners argue—it is their main argument--that the County's determination that the GHG emissions with mitigation measures will be less-than-significant is not supported by substantial evidence in the record and therefore violates CEQA sections 21168 and 21168.5. (Pet. Br., pp. 10-13.)

Petitioners' argument fails for multiple reasons. Petitioners, to begin with, fail in their responsibility to "lay out the evidence favorable" to the County's determination "and show why it is lacking." Defend the Bay v. City of Irvine (2004) 119 Cal.App.4th 1261, 1266 [objectors failed to address evidence that the project would not have a significant adverse impact on housing]. Petitioners also fail on the merits because there is substantial evidence in the record for the County's determination that there will be net zero GHG emissions once the mitigation measures are fully deployed. Petitioners, moreover, are barred by the doctrine of res judicata as Judge Torribio previously adjudicated their present claim in the CDFW litigation.

The significance levels for GHG emissions is defined by thresholds. These are provided in Appendix G, Section VII in the CEQA Guidelines, as follows:

> *Threshold 2.1-1: Would the Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*
>
> *Threshold 2.2-2: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?*

The criterion for GHG emissions under CEQA is "the extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environment." Guidelines section 15064.4(b)(1). That the village

projects will increase GHG emission levels is recognized. The Recirculation Analysis states that the Landmark project will increase GHG emissions by 57,695 MTCO2e (metric tonnes of carbon-dioxide equivalent) per year; and the Mission project by 78,832 MTCO2e per year. (For Landmark, see SR 456, and its Table 2.1-3, and for Mission, SR 29678, and its Table 2.1-3).

As to whether a GHG increase caused by a project is significant, the Recirculation Analysis notes "there is no scientific or regulatory consensus regarding what particular quantity of GHG emissions is significant. Further, no agency with regulatory authority and expertise, such as the CARB or SCAQMD, has adopted numeric GHG thresholds for land use development projects for purposes of CEQA." (SR 456, 29678.) However, the Recirculation Analysis concludes that since the mitigated projects will create no net increase in GHG emissions, the projects "GHG emissions are less than significant with mitigation for purposes of Threshold 1." (SR 480, 29702.) The question remains whether that level of emissions, nonetheless, conflict with the statewide emission reductions targets and, thus, could violate Threshold 2. The Recirculation Analysis concludes the mitigated emissions level complies with Threshold 2, saying:

> *[G]iven the Mitigated Project would result in no net increase in GHG emissions—that is, a net zero GHG emissions level, the Project is doing more than its "fair share" to advance statewide policy objectives. Additionally, the Project's emissions at build out are reasonably anticipated to decline due to continued regulatory and technological advancements. Further, the Project's mitigation program advances many of the State's primary policies directed towards the reduction of GHG emissions and the establishment of a clean energy paradigm. Therefore, the Project would not conflict with the statewide emissions reduction targets for 2020, 2030 and 2050 for purposes of Threshold 2.* (SR 482, 29704.)

Substantial evidence supports these determinations. The Recirculation Analysis advises that, for the Landmark and Mission projects, 50 percent of the net GHG emissions reduction will be obtained by requiring GHG-limiting structures on-site or elsewhere in Los Angeles County; and that 50 percent will be achieved through implementing the Newhall Ranch GHG Reduction Plan, which will fund or subsidize investments in off-site GHG reduction programs or obtain certified carbon credits. (SR 1646.) The mitigation strategies are too extensive and detailed to summarize here, but the GHG emission reduction strategies described in the Recirculated Analysis include the following:

> ZNE construction design in the residential, commercial and public structures included in the Landmark and Mission projects;

Electronic charging stations for vehicles to be installed at every residence and in public locations in the development and off-site;

A building retrofit program to improve energy efficiency of existing buildings in disadvantaged communities in the Los Angeles County;

Implementation of the Newhall Ranch GHG Reduction Plan to fully offset all remaining Project-related GHG emissions to zero by funding activities that directly reduce or sequester GHG emissions or obtaining certified carbon credits (cap-and-trade offsets). (SR1618-1619; 30911-30912.)

These mitigation measures will be implemented as conditions that are imposed on the developer to obtain the required governmental permits for the build-out of the projects. (SR 1780.) The Newhall Ranch GHG Reduction Plan provides procedures to quantify the GHG emissions reductions achieved from the mitigation measures as well as procedures to quantify the GHG emissions that must be reduced elsewhere so that the projects will achieve net zero emissions.

The determination made in the Recirculated Analysis that the Project with the mitigation measures will "cause no net increase in GHG emissions" has substantial evidence support in the record. The County relied on technical evidence found in the Recirculated Analysis including Appendix 2.1-A (SR 395-953; 29617-30243) and Appendix 2.7 (SR 28919-29036, 38947-39064). This technical evidence was prepared by experts on the relevant topics including building energy efficiency, GHG emissions estimations, and transportation planning. (SR 1418-1438, 1463-1485, 1519-1525, 1532-1536.) These consultant studies support the finding that with mitigation the GHG emissions from the two village projects will be net zero and, thus, by definition, will be below a significant level.

The California Department of Fish and Wildlife—considering the same thirteen mitigation measures—determined the mitigation measures for the Newhall Ranch development complied with CEQA. (SR 39213-39216 [CDFW NOD].) The County considered and found it reasonable to "consider [CDFW's] methodology, analysis, and mitigation as a source of evidentiary support for the Recirculated Analysis." (SR 51-52, 118.) Moreover, Judge Torribio, acting upon Petitioners' challenge in the CDFW litigation, held that the mitigation measures that Newhall Ranch had adopted in response to the writ of mandate in the CDFW litigation complied with CEQA. The mitigation measures that Judge Torribio found sufficient under CEQA in the CDFW litigation are the same mitigation measures under consideration in this action. Petitioners did not appeal Judge Torribio's decision that Newhall Ranch with the mitigation measures had complied with CEQA.

The California Air Resources Board (CARD), the state agency charged with regulating air quality throughout California, found that "the project as currently

proposed will not result in any net additional greenhouse gas emissions after the identified mitigation measures are fully implemented." (CARB letter of 11/3/16, SR 28917; CARB letter of 6/7/17, SR 29243.) While the CARB letters refer to the CDFW's analysis of Newhall Ranch's RMDP/SCP, Petitioners have acknowledged that the mitigation measures for the Landmark and Mission projects are "identical to the mitigation measures approved by CDFW" for the Newhall Ranch as a whole.

Petitioners' present claim has been decided adversely to them in an earlier litigation to which they were parties. Judge Torribio, in concluding the CDFW litigation with his May 16, 2018 decision and order, decided that substantial evidence supported CDFW's determination that the mitigation measures for the Newhall Ranch development, of which the village projects are a part, reduced GHG emissions to a less-than-significant level. Judge Torribio's framed the issue as follows:

> *The Department has taken the necessary corrective action to address all deficiencies identified by the Supreme Court, as described in the Judgment and Writ. The issue now is whether substantial evidence supports the Department's determination that the modified Project's greenhouse gas emissions will be less than significant under CEQA.*

Judge Torribio decided that issue as follows:

> *Through these 13 mitigation measures, the Project's greenhouse gas emissions will be reduced to zero, resulting in no significant impact under CEQA. Substantial evidence in the record supports the Department's determination that these mitigation measures can be implemented to reduce greenhouse gas emissions as described in the 2017 AEA.*

The mitigation measures at issue in the CDFW litigation, once the lead agency re-approved the project, are the same as here. The issue of whether substantial evidence supported the lead agency's determination that GHG emissions with mitigation were less-than-significant under CEQA was decided favorably to the lead agency in that litigation. Petitioners were plaintiffs in the CDFW litigation when it was concluded adversely to their position on May 16, 2018. The judgment entered against plaintiffs in the CDFW litigation is final.

Petitioners' present argument that the County's determination that GHG emissions from the village projects, once the mitigation measures are deployed, is not supported by substantial evidence is barred by the doctrine of res judicata. See, Inland Oversight Committee v. City of San Bernardino (2018) 27 Cal.App.5th 771, 779-780, 782-783 (claims under the Water Code that were previously decided on demurrer and not appealed constitute a res judicata and collateral estoppel bar to further litigation).

This court concludes that the County's determination that the GHG analysis for the mitigated Landmark and Mission projects will be less-than-significant as to GHG emissions impacts is supported by substantial evidence.

3. A 30-YEAR PERIOD TO ANALYZE THE PROJECTS' GHG EMISSIONS AND MITIGATION IS SUPPORTED BY SUBSTANTIAL EVIDENCE

The County, on July 18, 2017, in Supplemental Findings determined a 30-year period was an appropriate timeframe to measure, mitigate and monitor for GHG emissions from the Landmark and Mission projects. That Supplemental Finding identifies specific reasons for selecting a 30-year analysis period:

> *The Board finds that a 30-year project life is the appropriate period for evaluating the Project's GHG emissions inventory and mitigation period. The 30-year project life represents the reasonable limit of scientific and evidentiary data for the Project, given current modeling tools, the changing regulatory structure, the level of uncertainty beyond 2050 with respect to regulatory programs mandating further reductions in GHG emissions, and other available information. The 30-year project life has been approved for this project by CARB and is supported by guidance from the South Coast Air Quality Management District, is widely used in CEQA documents by lead agencies including the County, and represents the period of time for which GHG emissions can be reasonably estimated without undue speculation.* (Landmark SR 23; Mission SR 98.)

The body of information to support the County's adoption of a 30-year period to analyze GHG emissions is summarized in the 15 pages of Topical Response 2. (See, for Landmark, SR 1776-1789; for Mission, 31059-31068.) The Topical Response addresses "the evidentiary underpinnings for the greenhouse gas emissions analysts' selection of a 30-year project life and the corresponding duration of [the] mitigation period." (SR 1776.)

Petitioners object to, and argue there is no substantial evidence to justify, a 30-year limit for the analysis and mitigation of the projects' GHG emissions "as there is no substantial evidence the Projects' GHG emissions will cease after 30 years." Petitioners say that while the County "may justify the use of 30 years as an analysis window for estimating a project's total GHG emissions ... these arguments do not support a 30-year limit on mitigation." (Pet. Br. 8:19-20 and 30-31.) Petitioners argue that the County's adoption of 30-year horizon for the GHG analysis violates CEQA sections 21168 and 21168.5. (Pet. Br., pp. 8-9.) The referenced CEQA sections are generic provisions; the CEQA provision that is specific to GHG emissions is CEQA Guidelines section 15064.4.

The court concludes, contrary to Petitioners' arguments, that the 30-year timeframe for the analysis of GHG emissions is a discretionary decision under Guidelines section 15064.4 and is supported by substantial evidence. The

reduction in GHG emissions required by the on-site and off-site mitigation measures, moreover, will continue beyond the 30-year period established in the mitigation plan for the two village projects.

A public agency has substantial discretion to select an appropriate methodology to analyze the environmental impacts of a project. With respect to impacts from GHG emissions, CEQA Guidelines section 15064.4(a)(1) authorizes an agency's "careful judgment" in "the determination of significance greenhouse gas emissions." The Supreme Court, in considering the Newhall Ranch program EIR, relied on section 15064.4 to uphold the CDFW's choices in selecting the means to analyze GHG emissions. Center for Biological Diversity, Id. at 217. Section 15064.4, in subdivision (b) identifies certain factors that are to inform the public agency "when assessing the significance of impacts from greenhouse gas emissions on the environment." The Supreme Court, in upholding CDFW's methodology while rejecting its conclusions, quoted the factors listed in section 15064.4, subd. (b), signifying that a public agency's determinations as to the effectiveness of mitigating measures in meeting GHG emission goals should be reviewed in light of those factors. Subdivision (b) provides:

> *(b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:*
>
> *(1) the extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;*
>
> *(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.*
>
> *(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.*

The County justifies (in Topical Response 2) its selection of a 30-year window for analyzing the significance of GHG emissions for a development project because state environmental agencies have adopted that standard. CARB, the California agency for administering California's GHG policies (Health & Safety Code section 38510), approved CDFW's 30-year project life in its study of GHG emissions for the Newhall Ranch development. (SR 28625-28626, 1781, 31074, 28917, 29243, 1781, 31074.) CARB has also approved the use of a 30-year project life in certifying "leadership projects" (under AB 900) to mitigate all project-related GHG emissions to net zero. The guidance issued by the Southern California Air Quality Management District (SCAQMD) supports a 30-year projected life for CEQA evaluation for new development projects. (SR 28626-28627, 1782-1783, 31075-31076.)

Petitioners discount the importance of CARB's endorsement for a 30-year review period for GHG emissions by saying "these 30-year windows are for the purpose of analyzing GHG emissions, and it does not indicate that CARB would support limiting GHG mitigation to the first 30 years of a project's operation." (Pet. Br. 9:25-27.) Petitioners do not recognize (or at least do not talk about) the fact that the mitigation measures adopted by the County require the building of energy-saving structures at the project sites and of the retrofitting of older structures elsewhere in the County to achieve the net zero goals. The structural designs that reduce GHG emissions likely will continue beyond 30 years. (SR 1778.) Topical Response 2 adds: "During and after the 30-year project life, the Project would be subject to a range of existing and future regulatory standards and policies applicable to the built environment." (SR 1778.)

Petitioners, in their reply, argue that an assumed 30-year project life for the measurement of environmental impacts, even though a standard adopted by responsible state and local agencies, is an artificial and inadequate limitation for the analysis of continuing GHG emissions and, for that reason, does not comply with CEQA. This Court disagrees. CEQA does not require the analysis nor the mitigation of environmental impacts which are speculative. CEQA, therefore, does not require, as Petitioners suggest, that "if accurate estimates for the Projects' future GHG emissions are difficult to come by now," a mitigation obligation plan may be deferred until those emissions are known. (Reply Br., p.7.) The County, in its finding that is quoted at the beginning of this section, has stated valid reasons, supported at length in the Recirculation Analysis, for the methodology it used to approve a GHG emissions mitigation plan for the two village projects. The County's selection of a 30-year analysis period is justified under CEQA Guidelines section 15064.4 and substantial evidence.

4. CEQA DOES NOT REQUIRE A PROJECT TO MITIGATE GHG EMISSIONS TO A LEVEL THAT IS BELOW LESS-THAN-SIGNIFICANT

Petitioners argue—briefly in their opening brief (Pet. Br. 7: 33-8:15) and more extensively in their reply (Reply 4:27-6:6)—that, if the unmitigated impacts of a project are significant, the adoption of mitigation measures to bring the mitigated impacts to less-than-significant does not comply with CEQA, saying: "CEQA ... requires significant impacts to be mitigated to *minimize* them, not to reduce them to zero, or to a level where they are insignificant." (Reply 5:20-21, italic orig.)

Petitioners provide no case authority for their position; they rely on their interpretation of the statutory language. CEQA section 21100(b)(3) provides:

> *The environmental impact report shall include a detailed statement setting forth all of the following: ...*

(3) *Mitigation measures proposed to minimize the significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy.*

Citing a definition from a dictionary, Petitioners say the word "minimize" means "to reduce to the smallest possible amount, size, or degree." However, in common parlance, the word "minimize" means to reduce in size or in significance, and that appears to be its meaning in 21100(b)(3) because the balance of the provision requires "measures to reduce ... the consumption of energy." The mitigation measures adopted for the village projects do satisfy a minimization requirement because, when implemented, they will reduce the consumption of energy in the construction and operation phases of the projects. Moreover, the phrase from section 21100(b)(3) refers to mitigation measures that "minimize the significant effects on the environment," and, if the projects with mitigation will not generate a net increase in GHG emissions, there will be no "significant effects on the environment." Petitioners' definitional argument, therefore, is not persuasive.

Petitioners' argument, more to the point, is beyond the requirement of the CEQA statute. Under CEQA an agency is mandated to adopt mitigation measures that reduce adverse environmental impacts from a project to less than significance. CEQA section 21081; CEQA Guidelines 15091. If GHG emissions for the Newhall Ranch Project as a whole are mitigated to net zero, as the County has required, the emissions from the construction and operation of the projects are mitigated to less-than- significant. The statutory scheme does not require more from the County and the real party.

5. THE LEVEL OF SIGNIFICANCE FOR THE GHG EMISSIONS IS BASED ON THE THRESHOLDS IN APPENDIX G, SECTION VII OF CEQA GUIDELINES

Petitioners raise the argument that the Recirculation Analysis adopted the existing GHG emissions as the significance threshold. (Op. Br. 7:5-22; Reply 4:8-25.) Since the existing project sites are used for agricultural purposes, their existing GHG emissions are low, namely 698 MTCO2e/year for the Landmark project site (compared with anticipated project emissions [unmitigated] of 58,393 MTCO2e/yr. at build-out) and 369 for the present Mission site (compared with 79,202 MTCO2/yr. [unmitigated] at build out). (SR 1642, 30935; see Table 2.1-3 for Landmark at SR1648.) Petitioners argue that "based on this adopted threshold, any increase above the existing baseline GHG emissions would be significant, requiring further mitigation, if feasible, and, if infeasible, a statement of overriding considerations." (Pet. Br. 7:20-22.)

The immediate response from the County and Real Party is that such argument was waived because it was not raised (exhausted) during the public comment period, as required by CEQA section 21177(a). (Opp. Br. 22:14-18.)

Petitioners' reply appears to concede that this objection was not raised in the proceedings below, but still argues that "SCOPE is not required to have exhausted administrative remedies on this issue because it is not a 'grounds for noncompliance with [CEQA].' (§21177(a).)" This Court assumes, however, from Petitioners' argument as stated in the preceding paragraph, that Petitioners do contend that the County adopted an incorrect baseline and, thus, violated CEQA violation. If that is Petitioners' contention, the objection is dismissed for Petitioners' failure to exhaust under CEQA section 21177(a).

Petitioners' argument is also rejected on its merits. The Recirculated Analysis, which was prepared separately for each village project, states that with mitigation, the GHG significance thresholds will comply with the thresholds provided in "Section VII, Greenhouse Gas Emissions, of Appendix G of the CEQA Guidelines." (SR 1618, 1643-1644, 30911, 30937-30939.) Such analysis also complies with CEQA section 15064.4 (which contains provisions specific to GHG emissions). The County determined that the mitigation regime complies with the thresholds and will reduce emissions from the projects to a less-than-significant level; and this Court has found, supra pp. 9-12, that the County's determinations are supported by substantial evidence. CEQA jurisprudence, nonetheless, also provides that "the comparative baseline for a significance determination should normally be the existing physical conditions." Center for Biological Diversity, 62 Cal.4th supra at 224-225; also Guidelines section15126.2(a). The Recirculation Analysis, in some instances, as noted above, also compares GHG emissions at the natural site ("existing baseline conditions") with the projected GHG emissions from the construction and operation of the projects. These comparisons, in this case, do not establish the thresholds for the levels of significance for GHG emissions.

6. WATER SUPPLY IMPACTS DO NOT REQUIRE PREPARATION OF AN EIR SUPPLEMENT OR A NEW WATER SUPPLY ASSESSMENT

With respect to the availability of water supplies, Petitioners advance two arguments to challenge the County's approvals for the Landmark Village and Mission Village projects.

Petitioners contend that the County, before re-approving the village projects on July 18, 2017, was required to prepare and adopt a new water supply assessment under Water Code section 10910(h).

Petitioners also argue that "new information" describing California's drought conditions require the County to prepare and certify a supplemental environmental impact report for water supply impacts under CEQA section 21166.

Neither of these contentions has merit, as discussed below.

THE COUNTY'S RE-APPROVAL OF THE PROJECTS DID NOT REQUIRE THE PREPARATION OF NEW WATER SUPPLY ASSESSMENTS

The County prepared a water supply assessment ("WSA") for each village project before the projects were approved (on February 21, 2012 for Landmark; on October 25, 2011 for Mission). The separate WSAs for the two projects are dated January 2010 and describe the same water supply availability. (LV 8004-8036, MV 25072-25103.) The WSAs were required by California Water Code section 10910(h). The County's compliance with the Water Code provision is also required by CEQA section 21151.9. The WSAs are intended to provide the County with an analysis to show that the affected water system will have sufficient water supplies to meet the existing and planned future development for the area. (LV 8009.)

The County did not prepare new WSAs before it re-approved the village projects on July 18, 2017. Petitioners argue that the County violated CEQA section 21151.9, as well as Water Code section 10910, by failing, when re-approving the Village projects, to obtain new WSAs for each project. (Pet. Br., pp. 25-28.)

Respondents' first response it that Petitioners waived (failed to exhaust) this argument by not raising it in the public comment period before the County re-approved of the projects on July 18, 2017. Objections that a project does not comply with CEQA mandates must be presented "orally or in writing during the public comment period" or before the agency takes final action on the project. CEQA section 21177. If the objections are not presented in that time period, they are waived. The Court finds, as this issue was not timely raised, it was waived.

Ignoring their failure to raise any objection in the public comment period, Petitioners assert that when the County "decided to proceed by preparing the Recirculated Analysis [it] triggered the requirement in Water Code § 10910(c)(1) that the County request new WSAs for the two Projects." (Pet.Br. 25: 27-29.) Petitioners further argue that "[t]hough the courts upheld the water supply analysis in the 2011 EIRs, SB 610 and CEQA required the County to prepare new Water Supply Assessments as part of the process of recirculating portions of the EIRs." (Pet. Br. 28: 11-13.) Petitioners' argument, as stated, relies on a false assumption, as the 2011 EIRs neither in whole nor part were recirculated. The County prepared a new Recirculation Analysis to address GHG emissions, but otherwise left the 2011 EIRs in place. Petitioners' further argument that the County's circulation of the Recirculated Analysis triggered automatically a statutory requirement for new WSAs is erroneous. Water Code section 10910(h) provides in relevant part:

> *(h) ...if a project has been the subject of a water supply assessment that complies with the requirements of this part, no additional water supply assessment shall be required for subsequent projects that were part of a larger project ... unless one or more of the following changes occurs: ... (2) Changes in the circumstances or conditions substantially affecting the ability ... to provide a sufficient supply of water for the project [;] (3) Significant new information becomes available that was not known and could not have been known at the time when the assessment was prepared.*

Petitioners concede that there has not been any change that effects "a sufficient supply of water for the project." They say, in fact, that Newhall Ranch "rigged the system to ensure its projects will be given priority in water allocation." (Pet. Br. 27:14-15.) Petitioners proffer as "significant new information" various reports about drought conditions (discussed in the next section), but the 2011 EIRs water service sections evaluate the effect of "past and current drought conditions" on water availability for the projects and the area. (LV 4732-4734, MV 6150-6153; also SR 39367, 39383.)

Petitioners, therefore, do not demonstrate any requirement for the preparation of new WSAs before the County re-approved the village projects.

PETITIONERS FAIL TO IDENTIFY "NEW INFORMATION" THAT REQUIRE THE PREPARATION OF A SUPPLEMENTAL EIR

Petitioners contend that they, during the public comment period for the Recirculated Analysis, provided "new information" that undermines the water sustainability findings made in the 2011 EIRs. They argue "[n]ew information shows the water supply is not as reliable as assumed in the 2011 EIRs because of climate change, raising concerns about Santa Clarita's water supply." (Pet. Br. 24:22-24.) Petitioners want the Court to issue an order under CEQA section 21166 to require the County to prepare supplemental EIRs to address the projects' water supply impacts. (Pet. Br. pp.14-24.)

CEQA imposes a high bar to requiring the preparation of a supplemental EIR after an EIR is certified. No supplement may be ordered unless "substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report." CEQA section 21166(b). Guidelines section 15162(a)(3) requires the moving parties to show that "[n]ew information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence" when the EIR was certified satisfies one or more defined standard, the pertinent one being that "[s]ignificant effects previously examined will be substantially more severe than shown in the previous EIR." Petitioners' showing must be based on "substantial evidence in light of the whole record."

To apply this standard, because Petitioners argue the "[n]ew information shows the water supply is not as reliable as assumed in the 2011 EIRs," the Court must review the 2011 EIRs for their analysis of water sustainability and also the "new information" provided by Petitioners about water sustainability.

Turning to the 2011 EIRs and supporting documentation, there is for each village project an extensive discussion of the available water supplies. The water demand for each project is identified; the water sources required to meet that demand are committed; and the water quantities available over rainfall cycles is estimated.

The Landmark and Mission projects will have access to the potable water presently used by the Newhall Ranch for agricultural irrigation. Newhall Ranch has contract rights to take 7,038 acre feet per year (afy) from the Alluvial aquifer (LV 10819, 10938; MV 6049, 6171), from which Landmark will receive 608 afy and Mission will receive 1,676 afy annually. (LV 10938; MV 6172.) (The projects' total water demand—potable and non-potable--is 972 afy annually for Landmark, and 2,919 afy for Mission, with those totals estimated to increase 10 percent in drought years. LV 10819; MV 6049.) The 2011 EIRs analyze the effect of single year and multi-year drought conditions on the availability of water from all sources. That analysis builds on the 2005 and 2010 urban water management plans (UWMP) prepared by local water companies. (See, for the 2005 UWMP, LV 16173, 16254, 16257; and for 2010 UWMP, LV 8382, 8441, 8456; and see LV 2256-2283; MV 2673-2700.) The UWMPs must be prepared by local water purveyors every five years by state law, Water Code section 10610 et seq, and must provide detailed projections (20-year projections) for local water conditions. Water Code §10631, subd. (c)(1)(C). The 2011 EIRs discuss fully the effect of cyclical low rainfall and drought years on the aquifer water sources in Santa Clarita Valley. (LV 4681, 4734, MV 6062, 6157; LV 4695, MV 6078.)

The Court, having reviewed this extensive record, agrees with the opposition brief (p. 35) in its statement that:

> *Climate and groundwater supply patterns that vary from year-to-year were known, disclosed, discussed, analyzed, and accounted for in the 2010 Urban Water Management Plan (UWMP) and the 2011 EIRs for the two projects.*

Petitioners do not dispute that the water sustainability conclusions reported in the 2011 EIRs were the best available in year 2011. Nor do Petitioners contest the methodology by which the 2011 EIRs supported their conclusions as to water sustainability in cyclical rainfall periods typical of Southern California.

The 2011 EIRs reached the following conclusion with respect to water supplies available for the village projects:

> *Water sources expected to serve the [Village] are the applicant's agricultural water from the Alluvial aquifer to the project's potable demand, and recycled water from the Newhall Ranch WRP ... to meet the project's non-potable demand. These local supplies are readily available from the local groundwater basin, and from existing and approved water reclamation plants ....*

The 2011 EIRs conclude that the local water supplies are adequate "to serve the projects and their anticipated populations" under average and drought conditions and, in addition, "existing and future uses in Santa Clarita Valley." (LV 10818-10819; MV 6048-6049.) The water supply assessments prepared in January by local purveyors as required under state law are consistent with those conclusions. (LV 8004-8036; MV 25073-25105).

The County, on July 18, 2017, in re-approving the village projects (after re-analyzing the GHG emissions with the new mitigation measures) relied on the water assessments in the 2011 EIRs, saying:

> *Based on the water supply impacts already assessed, the County has determined that there are no identified substantial changes in the Landmark Village Project or its circumstances that warrant any further review of analysis of the Landmark Village Project's water supply impacts.* (For Landmark, SR 2543.)

Petitioners presented their "new information" during the public comment period for the Recirculation Analysis. Petitioners submitted the various reports identified below:

(1) A GSI Water Solutions, Inc. report dated 12/15/14 (SR 3972, 33272);
(2) A report titled "Drought and Equity in the San Francisco Bay Area dated June, 2016 (SR 7019-7022 and et seq.);
(3) Text of video "Water Deeply" on an internet site (SR 7047-53); and
(4) An Environmental Research Letter titled "Future land-use related water demand in California" published May 18, 2016 (SR 7056-7063).

Petitioners argue that the above reports predict that climate change will become substantially more severe so as to imperil the water supplies needed for the projects and that this development is not sufficiently discussed in the 2011 EIRs. They say "the circumstances under which the Projects are being undertaken have changed substantially." (Pet. Br. 14: 30-31.)

The "new information" identified by Petitioners does not, in the Court's view, show that "substantial changes [have] occur]red] ... which will require major revisions" in the 2011 EIRs. Petitioners argue that the handful of reports that they introduced into the record to show that the rainfall reductions since 2011 have rendered as doubtful the projections of water availability contained

in the 2011 EIRs. The 2011 EIRs contain data to show the cyclical patterns of rainfall in Southern California. The County and the real party, in their joint opposition brief, argue the breadth and sufficiency of the data to support the EIR conclusions that the projects will have water sustainability. (Opp. Br., pp.35-39.) Respondents, therefore, argue that Petitioners' "new information" is neither new nor inconsistent with the cyclical pattern recognized in the 2011 EIRs. Yet Petitioners do not respond to this criticism nor discuss any specific deficiencies in the data in 2011 EIRs. Petitioners, because of that oversight, have not demonstrated "substantial evidence in the entire record" to carry their burden.

The "new information" that Petitioners offer is, moreover, too short-term to support broad conclusions that climate change will drastically reduce water availability for the projects or for Santa Clarita Valley. Only the GSI report addresses water availability in Santa Clarita Valley, and the GSI report, to the extent material, contained new data for a limited number of years. Petitioners' argument, moreover, is undercut by their admission there was "heavy rainfall in the winter of 2016-2017." (Pet. Br. 24:15.) While the heavy rainfall for the 2016-2017 winter is minimized in the record (SR 2308), such was acknowledged in the opening brief, noted in the opposition brief (Op. Br. 39:5-6) and discussed at the writ hearing. (9/15/18 transcript, pp. 68-69.) The admission of heavy rainfall in the winter of 2016-2017 limits the evidentiary value of the "new information" put forward by Petitioners to meet CEQA's standard for the preparation of an EIR supplement.

The Court finds that Petitioners have not carried their burden to establish substantial evidence from the record to require the preparation of an EIR supplement to address water sustainability issues for the village projects.

PREPARATION OF JUDGMENT

The Court shall enter Judgment on the Verified Petition for Writ of Mandate for respondent County of Los Angeles and real party Newhall Land and Farming Company. Respondent's counsel is to prepare, serve, and lodge a form of Judgment that with consistent with the Court's Statement of Decision within 10 days.

Once the Judgment is signed the parties are directed to retrieve and retain in their offices the binders containing the administrative record and Joint Appendix submitted by each side.

The Clerk is directed to serve this Decision on Petition for Writ of Mandate on the parties by U.S. Mail and fax this date.

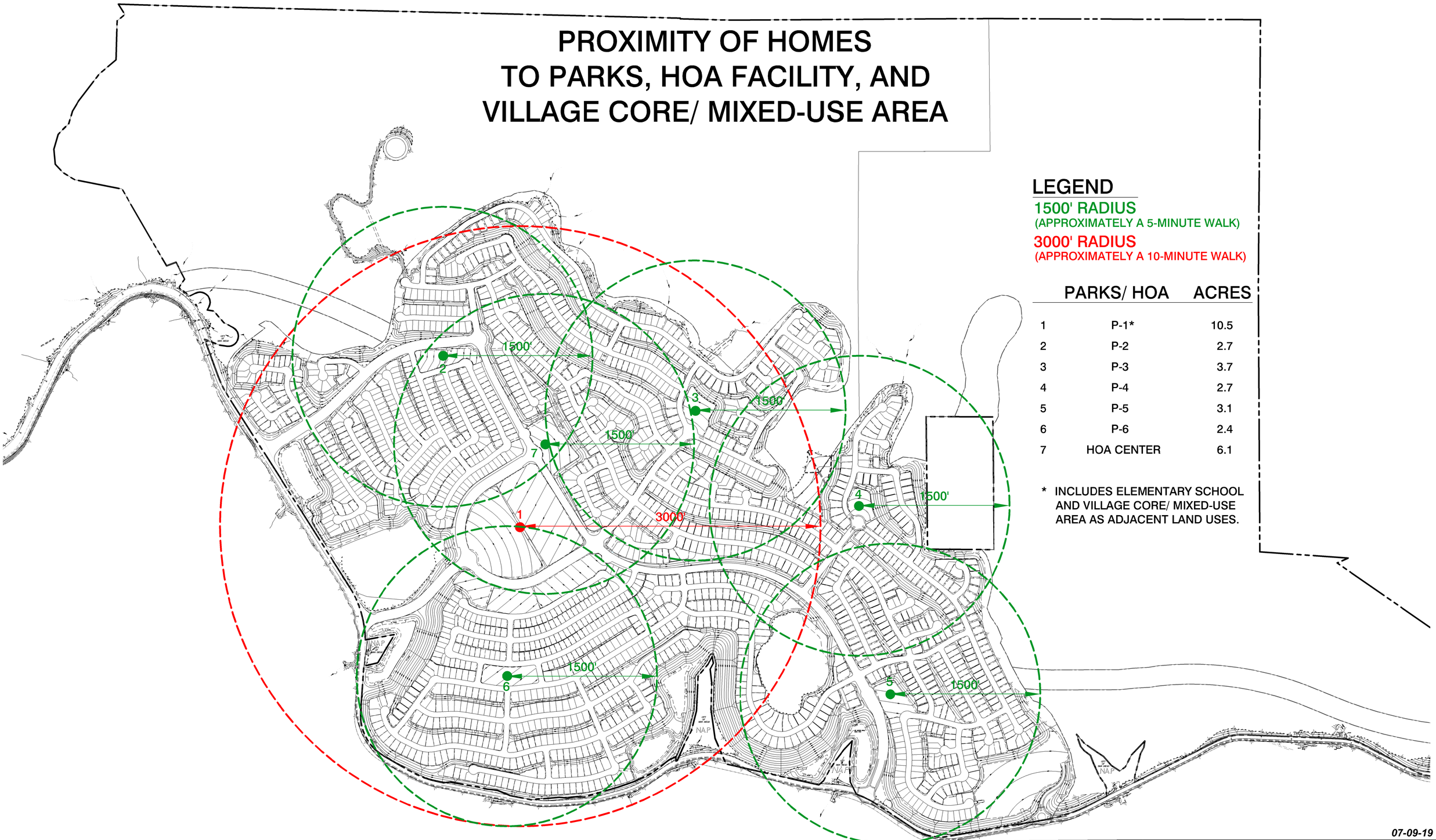
DATED: December 19, 2018

Richard L. Fruin, Jr.

RICHARD L. FRUIN, JR.
Superior Court of California
HON. RICHARD L. FRUIN, JR.

Attachment RO6.2

PROXIMITY OF HOMES TO PARKS, HOA FACILITY, AND VILLAGE CORE/ MIXED-USE AREA



LEGEND

1500' RADIUS
(APPROXIMATELY A 5-MINUTE WALK)

3000' RADIUS
(APPROXIMATELY A 10-MINUTE WALK)

	PARKS/ HOA	ACRES
1	P-1*	10.5
2	P-2	2.7
3	P-3	3.7
4	P-4	2.7
5	P-5	3.1
6	P-6	2.4
7	HOA CENTER	6.1

* INCLUDES ELEMENTARY SCHOOL AND VILLAGE CORE/ MIXED-USE AREA AS ADJACENT LAND USES.

07-09-19

ENGINEER:

HUNSAKER & ASSOCIATES SAN DIEGO, INC

PLANNING 9707 Waples Street
ENGINEERING San Diego, Ca 92121
SURVEYING PH(858)558-4500 · FX(858)558-1414

TM COMPOSITE
EIR ALTERNATIVE "H"
WITH RADIUS FROM PARK

OTAY VILLAGE 13

County of San Diego, California

SHEET 1 OF 1

R:\0982\&Pln\Exhibits\Composite Exhibits\EX 107 EIR Alternative H TM Composite Radia Park Distance.dwg[]Jul-09-2019:11:06

Attachment RO6.3

Scientific Resources Associated
1328 Kaimalino Lane
San Diego, CA 92109

Memorandum

To:	County of San Diego	**From:**	Valorie Thompson
Re:	Construction-Related Architectural Coatings Otay Ranch Village 13	**Date:**	August 3, 2015

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

Introduction

This technical memorandum addresses the proposed Project's volatile organic compound (VOC) emissions attributable to the application of architectural coatings during the construction phase, and also evaluates the feasibility of and effect of using low-VOC paints during Project construction.

Regulatory Setting

SDAPCD Rule 67.0. The San Diego Air Pollution Control District (SDAPCD) regulates the VOC content in paints under Regulation IV – Prohibitions. The SDAPCD adopted Rule 67.0, Architectural Coatings, in 1977, and revised the rule in 2001.

Rule 67.0 requires architectural coatings to meet VOC standards based on the type of coating. For general coatings, the following VOC standards contained in Rule 67.0 are currently in effect:

- Flat Coatings – 100 grams per liter (g/l)
- Nonflat Coatings – 150 g/l[1]

[1] SDAPCD Rule 67.0 (d)(1), Table 1 - VOC Standards.

The modeling and emissions inventories presented in Draft EIR Section 2.2., Air Quality, assumed that the proposed Project would comply with Rule 67.0, and that the Project's interior paints would be classified as flat coatings with a VOC content limit of 100 g/l and exterior paints would be classified as nonflat coatings with a VOC content limit of 150 g/l.

SDAPCD Rule 67.0.1. On June 24, 2015, the SDAPCD adopted a new rule governing the VOC content of architectural coatings, Rule 67.0.1. This rule was adopted after the Draft EIR was published, and goes into effect on January 1, 2016. As such, by the time the proposed Project reaches the building construction phase, Rule 67.0.1 (not Rule 67.0) will be the applicable local regulatory standard.

Rule 67.0.1 requires architectural coatings to meet more stringent VOC standards than Rule 67.0 based on the type of coating. For general coatings, the following VOC standards will take effect on January 1, 2016:

- Flat Coatings – 50 g/l
- Nonflat Coatings – 100 g/l[2]

SCAQMD Rule 1113. The South Coast Air Quality Management District (SCAQMD) also regulates the VOC content in architectural coatings through its Rule 1113. Rule 1113 was originally adopted in 1977 and was most recently amended in 2013.

Rule 1113 currently requires both flat and nonflat coatings to meet a VOC content of 50 g/l.[3] As such, Rule 1113 – because it imposes a uniform VOC content limit on both flat and nonflat coatings – is the most restrictive architectural coatings standard surveyed in this memorandum.

Supplemental Inventory Analysis

In order to determine the emission reduction benefits of Rule 1113 compliance, the CalEEMod Model was run for the year in which the Project's maximum construction-related VOC emissions occur (Year 6) both with Rule 67.0 VOC limits and SCAQMD Rule 1113 VOC limits for architectural coatings. Table 1 presents a summary of the VOC emissions attributable to architectural coatings with implementation of Rule 67.0 VOC limits, versus emissions with implementation of SCAQMD Rule 1113 VOC limits. The table also presents the maximum daily VOC emissions calculated by the CalEEMod Model for both regulatory compliance scenarios.

[2] SDAPCD Rule 67.0.1 (d)(1), Table 1, VOC Content of Coatings.
[3] SCAQMD Rule 1113 (c), Table of Standards, VOC Limits.

Table 1 VOC Emissions with Implementation of VOC Limits on Architectural Coatings VOCs, lbs/day		
Regulatory Compliance Scenario	With Rule 67.0 VOC Limits	With SCAQMD Rule 1113 VOC Limits
Architectural Coatings Application Emissions	82.73	33.30
Significance Threshold	75	75
Above Threshold?	*Yes*	*No*
Maximum Daily Construction Emissions	96.15	69.49
Significance Threshold	75	75
Above Threshold?	*Yes*	*No*

As discussed above, the air quality analysis that was prepared for the Draft EIR assumed that interior paints would meet the Rule 67.0 flat coatings standard of 100 g/l, and exterior paints would meet the Rule 67.0 nonflat coatings standard of 150 g/l. Based on these assumptions, the maximum daily emissions of VOCs during construction were estimated at 96.15 lbs/day (Draft EIR Table 2.2-6, Page 2.2-26). A review of the CalEEMod Model's output files indicates that approximately 85 percent of the Project's construction-related VOC emissions, in the peak year (Year 6), are attributable to the application of architectural coatings.

In light of the existing regulatory standard adopted by the SCAQMD, which has jurisdiction over a neighboring air basin, the CalEEMod Model was re-run using the SCAQMD VOC limit of 50 g/l for both interior and exterior paints. With compliance with the SCAQMD rule, the Project's construction-related VOC emissions attributable to architectural coatings would be reduced by approximately 61 percent, and the Project's maximum daily emissions would be approximately 69.5 lbs/day. Therefore, the VOC emissions during construction would be reduced to a level that is below the County of San Diego's significance threshold of 75 lbs/day.

Mitigation Measure

Application of the SCAQMD's rule to the proposed Project is feasible, as builders in the Southern California region already are required to achieve the SCAQMD's VOC content limits in Los Angeles, Riverside, Orange and San Bernardino counties. Therefore, the following new mitigation measure is recommended for inclusion in the Final EIR:

> "The Project's architectural coatings shall comply with Rule 1113 of the South Coast Air Quality Management District, as amended in 2013."

To the extent that the SDAPCD subsequently amends its architectural coatings rule prior to building construction, and that amendment imposes VOC content limits that are more restrictive than those adopted by the SCAQMD, the Project would be required to comply with those standards as a matter of law, thereby rendering the analysis provided herein conservative.

Conclusion

Implementation of the mitigation measure recommended above, which imposes VOC content limits for interior and exterior paints that are equivalent to those adopted by the SCAQMD, would reduce the Project's construction-related VOC emissions to less than significant.

Valorie L. Thompson, Ph.D.

Attachment

CalEEMod Model Output

Otay Ranch Resort Village Year 6 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	794.00	Student	10.00	60,000.00	0
City Park	10.30	Acre	10.30	448,668.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2021
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_Nonresidential_Interior	763002	0
tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior	250	0

tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstructionPhase	NumDays	110.00	152.00
tblConstructionPhase	NumDays	1,550.00	219.00
tblConstructionPhase	NumDays	155.00	130.00
tblConstructionPhase	NumDays	110.00	132.00
tblConstructionPhase	PhaseEndDate	8/2/2021	12/31/2020
tblConstructionPhase	PhaseEndDate	6/3/2021	12/31/2020
tblConstructionPhase	PhaseEndDate	7/5/2021	12/31/2020
tblConstructionPhase	PhaseEndDate	12/29/2020	7/31/2020
tblConstructionPhase	PhaseStartDate	1/1/2021	5/1/2020
tblConstructionPhase	PhaseStartDate	8/1/2020	3/1/2020
tblConstructionPhase	PhaseStartDate	1/1/2021	7/1/2020
tblConstructionPhase	PhaseStartDate	7/1/2020	2/1/2020
tblGrading	AcresOfGrading	910.00	102.80
tblGrading	MaterialExported	0.00	1,087,447.00
tblGrading	MaterialImported	0.00	1,087,447.00
tblLandUse	LandUseSquareFeet	66,381.08	60,000.00
tblLandUse	LotAcreage	1.52	10.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2021
tblTripsAndVMT	HaulingTripLength	20.00	0.25
tblTripsAndVMT	VendorTripNumber	106.00	212.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	289.00	578.00
tblTripsAndVMT	WorkerTripNumber	58.00	116.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	68.0401	254.0197	447.2351	0.4561	23.4646	10.1283	33.5929	9.2865	9.3812	18.6677	0.0000	41,333.3483	41,333.3483	8.1591	0.0000	41,504.6883
Total	**68.0401**	**254.0197**	**447.2351**	**0.4561**	**23.4646**	**10.1283**	**33.5929**	**9.2865**	**9.3812**	**18.6677**	**0.0000**	**41,333.3483**	**41,333.3483**	**8.1591**	**0.0000**	**41,504.6883**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	68.0401	254.0197	447.2351	0.4561	14.1720	10.1283	24.3003	4.9756	9.3812	14.3568	0.0000	41,333.3482	41,333.3482	8.1591	0.0000	41,504.6882
Total	**68.0401**	**254.0197**	**447.2351**	**0.4561**	**14.1720**	**10.1283**	**24.3003**	**4.9756**	**9.3812**	**14.3568**	**0.0000**	**41,333.3482**	**41,333.3482**	**8.1591**	**0.0000**	**41,504.6882**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**39.60**	**0.00**	**27.66**	**46.42**	**0.00**	**23.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2020	6/30/2020	5	130	
2	Utilities	Trenching	2/1/2020	7/31/2020	5	130	
3	Building Construction	Building Construction	3/1/2020	12/31/2020	5	219	
4	Architectural Coating	Architectural Coating	5/1/2020	12/31/2020	5	152	
5	Paving	Paving	7/1/2020	12/31/2020	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 102.8

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 763,002; Non-Residential Outdoor: 254,334

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	271,863.00	10.80	7.30	0.25	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	578.00	212.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	116.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.2337	0.0000	15.2337	7.0670	0.0000	7.0670			0.0000			0.0000
Off-Road	12.1687	132.4499	99.6082	0.1717		5.9393	5.9393		5.4642	5.4642		16,634.1282	16,634.1282	5.3798		16,747.1043
Total	**12.1687**	**132.4499**	**99.6082**	**0.1717**	**15.2337**	**5.9393**	**21.1730**	**7.0670**	**5.4642**	**12.5312**		**16,634.1282**	**16,634.1282**	**5.3798**		**16,747.1043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	14.1558	43.2909	243.2418	0.0603	0.4987	0.1638	0.6626	0.1404	0.1505	0.2909		5,310.3617	5,310.3617	0.1300		5,313.0911
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1427	0.1646	1.7758	5.8300e-003	0.4600	3.2600e-003	0.4633	0.1220	3.0300e-003	0.1251		416.3410	416.3410	0.0188		416.7349
Total	**14.2985**	**43.4554**	**245.0176**	**0.0661**	**0.9588**	**0.1671**	**1.1259**	**0.2624**	**0.1535**	**0.4160**		**5,726.7027**	**5,726.7027**	**0.1487**		**5,729.8260**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9411	0.0000	5.9411	2.7561	0.0000	2.7561			0.0000			0.0000
Off-Road	12.1687	132.4499	99.6082	0.1717		5.9393	5.9393		5.4642	5.4642	0.0000	16,634.1282	16,634.1282	5.3798		16,747.1043
Total	**12.1687**	**132.4499**	**99.6082**	**0.1717**	**5.9411**	**5.9393**	**11.8805**	**2.7561**	**5.4642**	**8.2203**	**0.0000**	**16,634.1282**	**16,634.1282**	**5.3798**		**16,747.1043**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	14.1558	43.2909	243.2418	0.0603	0.4987	0.1638	0.6626	0.1404	0.1505	0.2909		5,310.3617	5,310.3617	0.1300		5,313.0911
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1427	0.1646	1.7758	5.8300e-003	0.4600	3.2600e-003	0.4633	0.1220	3.0300e-003	0.1251		416.3410	416.3410	0.0188		416.7349
Total	**14.2985**	**43.4554**	**245.0176**	**0.0661**	**0.9588**	**0.1671**	**1.1259**	**0.2624**	**0.1535**	**0.4160**		**5,726.7027**	**5,726.7027**	**0.1487**		**5,729.8260**

3.3 Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Off-Road	2.2848	21.8930	23.3694	0.0343		1.3286	1.3286		1.2223	1.2223		3,323.0394	3,323.0394	1.0747		3,345.6089
Total	**2.2848**	**21.8930**	**23.3694**	**0.0343**		**1.3286**	**1.3286**		**1.2223**	**1.2223**		**3,323.0394**	**3,323.0394**	**1.0747**		**3,345.6089**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0510	0.0588	0.6342	2.0800e-003	0.1643	1.1700e-003	0.1655	0.0436	1.0800e-003	0.0447		148.6932	148.6932	6.7000e-003		148.8339
Total	**0.0510**	**0.0588**	**0.6342**	**2.0800e-003**	**0.1643**	**1.1700e-003**	**0.1655**	**0.0436**	**1.0800e-003**	**0.0447**		**148.6932**	**148.6932**	**6.7000e-003**		**148.8339**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2848	21.8930	23.3694	0.0343		1.3286	1.3286		1.2223	1.2223	0.0000	3,323.0394	3,323.0394	1.0747		3,345.6089
Total	**2.2848**	**21.8930**	**23.3694**	**0.0343**		**1.3286**	**1.3286**		**1.2223**	**1.2223**	**0.0000**	**3,323.0394**	**3,323.0394**	**1.0747**		**3,345.6089**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0510	0.0588	0.6342	2.0800e-003	0.1643	1.1700e-003	0.1655	0.0436	1.0800e-003	0.0447		148.6932	148.6932	6.7000e-003		148.8339
Total	**0.0510**	**0.0588**	**0.6342**	**2.0800e-003**	**0.1643**	**1.1700e-003**	**0.1655**	**0.0436**	**1.0800e-003**	**0.0447**		**148.6932**	**148.6932**	**6.7000e-003**		**148.8339**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2225	38.1679	33.6169	0.0536		2.2257	2.2257		2.0929	2.0929		5,084.9598	5,084.9598	1.2389		5,110.9761
Total	**4.2225**	**38.1679**	**33.6169**	**0.0536**		**2.2257**	**2.2257**		**2.0929**	**2.0929**		**5,084.9598**	**5,084.9598**	**1.2389**		**5,110.9761**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.6906	12.5879	19.3186	0.0501	1.4068	0.2041	1.6109	0.4013	0.1878	0.5891		4,693.2743	4,693.2743	0.0342		4,693.9915
Worker	1.4725	1.6984	18.3289	0.0601	4.7481	0.0337	4.7818	1.2594	0.0312	1.2907		4,297.2339	4,297.2339	0.1936		4,301.2997
Total	**3.1631**	**14.2863**	**37.6475**	**0.1103**	**6.1549**	**0.2378**	**6.3927**	**1.6607**	**0.2190**	**1.8797**		**8,990.5082**	**8,990.5082**	**0.2278**		**8,995.2912**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2225	38.1679	33.6169	0.0536		2.2257	2.2257		2.0929	2.0929	0.0000	5,084.9598	5,084.9598	1.2389		5,110.9761
Total	**4.2225**	**38.1679**	**33.6169**	**0.0536**		**2.2257**	**2.2257**		**2.0929**	**2.0929**	**0.0000**	**5,084.9598**	**5,084.9598**	**1.2389**		**5,110.9761**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	1.6906	12.5879	19.3186	0.0501	1.4068	0.2041	1.6109	0.4013	0.1878	0.5891		4,693.2743	4,693.2743	0.0342		4,693.9915
Worker	1.4725	1.6984	18.3289	0.0601	4.7481	0.0337	4.7818	1.2594	0.0312	1.2907		4,297.2339	4,297.2339	0.1936		4,301.2997
Total	**3.1631**	**14.2863**	**37.6475**	**0.1103**	**6.1549**	**0.2378**	**6.3927**	**1.6607**	**0.2190**	**1.8797**		**8,990.5082**	**8,990.5082**	**0.2278**		**8,995.2912**

3.5 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.0718					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4844	3.3677	3.6628	5.9400e-003		0.2219	0.2219		0.2219	0.2219		562.8961	562.8961	0.0436		563.8113
Total	**31.5562**	**3.3677**	**3.6628**	**5.9400e-003**		**0.2219**	**0.2219**		**0.2219**	**0.2219**		**562.8961**	**562.8961**	**0.0436**		**563.8113**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2955	0.3409	3.6785	0.0121	0.9529	6.7600e-003	0.9597	0.2528	6.2700e-003	0.2590		862.4206	862.4206	0.0389		863.2366
Total	**0.2955**	**0.3409**	**3.6785**	**0.0121**	**0.9529**	**6.7600e-003**	**0.9597**	**0.2528**	**6.2700e-003**	**0.2590**		**862.4206**	**862.4206**	**0.0389**		**863.2366**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	31.0718					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4844	3.3677	3.6628	5.9400e-003		0.2219	0.2219		0.2219	0.2219	0.0000	562.8961	562.8961	0.0436		563.8113
Total	**31.5562**	**3.3677**	**3.6628**	**5.9400e-003**		**0.2219**	**0.2219**		**0.2219**	**0.2219**	**0.0000**	**562.8961**	**562.8961**	**0.0436**		**563.8113**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2955	0.3409	3.6785	0.0121	0.9529	6.7600e-003	0.9597	0.2528	6.2700e-003	0.2590		862.4206	862.4206	0.0389		863.2366
Total	**0.2955**	**0.3409**	**3.6785**	**0.0121**	**0.9529**	**6.7600e-003**	**0.9597**	**0.2528**	**6.2700e-003**	**0.2590**		**862.4206**	**862.4206**	**0.0389**		**863.2366**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5492	34.7248	35.7317	0.0565		1.8588	1.8588		1.7193	1.7193		5,327.1818	5,327.1818	1.6342		5,361.4994
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.5492**	**34.7248**	**35.7317**	**0.0565**		**1.8588**	**1.8588**		**1.7193**	**1.7193**		**5,327.1818**	**5,327.1818**	**1.6342**		**5,361.4994**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1427	0.1646	1.7758	5.8300e-003	0.4600	3.2600e-003	0.4633	0.1220	3.0300e-003	0.1251		416.3410	416.3410	0.0188		416.7349
Total	**0.1427**	**0.1646**	**1.7758**	**5.8300e-003**	**0.4600**	**3.2600e-003**	**0.4633**	**0.1220**	**3.0300e-003**	**0.1251**		**416.3410**	**416.3410**	**0.0188**		**416.7349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5492	34.7248	35.7317	0.0565		1.8588	1.8588		1.7193	1.7193	0.0000	5,327.1818	5,327.1818	1.6342		5,361.4993

Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.5492**	**34.7248**	**35.7317**	**0.0565**		**1.8588**	**1.8588**		**1.7193**	**1.7193**	**0.0000**	**5,327.1818**	**5,327.1818**	**1.6342**		**5,361.4993**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1427	0.1646	1.7758	5.8300e-003	0.4600	3.2600e-003	0.4633	0.1220	3.0300e-003	0.1251		416.3410	416.3410	0.0188		416.7349
Total	**0.1427**	**0.1646**	**1.7758**	**5.8300e-003**	**0.4600**	**3.2600e-003**	**0.4633**	**0.1220**	**3.0300e-003**	**0.1251**		**416.3410**	**416.3410**	**0.0188**		**416.7349**

Attachment RO6.4

Scientific Resources Associated
1328 Kaimalino Lane
San Diego, CA 92109

Memorandum

To:	County of San Diego	**From:**	Valorie Thompson
Re:	CO "Hot Spots" Analysis Otay Ranch Village 13	**Date:**	August 3, 2015

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

This technical memorandum has been prepared to address Comment D-20 from the City of Chula Vista, which requests that Draft EIR Subchapter 2.2, Air Quality, and the supporting Air Quality Impact Report (Draft EIR Appendix C-1) evaluate the carbon monoxide (CO) levels at the Otay Lakes Road/Wueste Road intersection in the Cumulative 2025 condition assuming that the intersection is operating at Level of Service (LOS) F. The City makes this request because the mitigation improvements identified in Draft EIR Subchapter 2.9, Transportation and Traffic, for the referenced intersection are within the City of Chula Vista's jurisdiction; as such, the County of San Diego – as the lead agency for this Project – cannot guarantee their implementation. (Draft EIR, p. 2.9-49.)

First, the Air Quality Impact Report (Draft EIR Appendix C-1) was completed in accordance with the County of San Diego's *Guidelines for Determining Significance and Report Format and Content Requirements - Air Quality* (County Guidelines; dated March 19, 2007).[1] As stated in the County Guidelines, CO "hot spots" are "pockets where the CO concentration exceeds the [National Ambient Air Quality Standards (NAAQS)] and/or [California Ambient Air Quality Standards (CAAQS)]." (County Guidelines, p. 22.) The County Guidelines further observe that such CO exceedances "have been found to occur only at signalized intersections that operate at or below

[1] County of San Diego. 2007. Available http://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/AQ-Guidelines.pdf.

level of service (LOS) E with peak-hour trips for that intersection exceeding 3,000 trips." (County Guidelines, p. 22.)

Based on the Traffic Impact Analysis (Draft EIR Appendix C-12) conducted for the Project, the a.m. peak hour traffic at the Otay Lakes Road/Wueste Road intersection in the Cumulative 2025 condition would be 2,672 trips, and the p.m. peak hour traffic at the Otay Lakes Road/Wueste Road intersection in the Cumulative 2025 condition would be 2,879 trips. (Draft EIR Appendix C-12, Figure 7-2A, Intersection Peak Hour Traffic Volumes – Cumulative (Year 2025) Conditions – see Intersection 20.) These trip counts are below the 3,000 trips screening level identified in the County Guidelines; therefore, CO "hot spots" modeling is not required by the County.

Second, as discussed in Subchapter 2.2.1.3, Existing Air Quality Conditions, of the Draft EIR, the San Diego Air Basin – within which the Project site is located – is designated as an "attainment" area for purposes of the CO NAAQS and CAAQS. In other words, the geographic region complies with the national and state air standards designed to protect against adverse health effects of CO. Consistent with the Air Basin's "attainment" designation, as discussed on page 36 of the Air Quality Impact Report (Draft EIR Appendix C-1):

> "The [San Diego Air Pollution Control District (SDAPCD)] has ceased monitoring CO at most of the monitoring stations within San Diego County as it does not consider the region to have a substantial problem with CO concentrations. Furthermore, vehicle CO emissions are anticipated to decrease in future years due to vehicle fleets continuing to turnover and more stringent vehicle emissions control standards coming into effect."

Also of note, the South Coast Air Quality Management District, which has jurisdiction over the South Coast Air Basin (as comprised of portions of Los Angeles, Riverside and San Bernardino counties and all of Orange County), studied the four most congested intersections within the South Coast Air Basin in 2003 in order to support their CO "attainment" demonstration to the U.S. Environmental Protection Agency. The modeled intersections experienced more than 100,000 average daily trips, and the Air District found that even these highly congested intersections would not cause a CO "hotspot" to result. [2]

Third, although substantial evidence already supports the Draft EIR's conclusion that the Project would not result in the creation of a CO "hot spot" at the referenced intersection, in response to the City's request, CO "hot spots" modeling was conducted using the CALINE4 model for the Otay Lakes Road/Wueste Road intersection in the Cumulative 2025 condition. Consistent with the comment's request,

[2] South Coast Air Quality Management District. 2003. 2003 Air Quality Management Plan. Appendix V.

the modeling assumed the intersection would operate at LOS F. Additionally, the modeling was conducted in accordance with the U.S. Environmental Protection Agency-approved *Transportation Project-Level Carbon Monoxide Protocol*, which is the standard method for project-level CO analysis used by the California Department of Transportation.[3] The modeling conservatively used worst-case meteorology (0.5 meters per second wind speed, wind direction toward receptors).

Based on this additional analysis, the traffic at the Otay Lakes Road/Wueste Road intersection would result in a maximum 1-hour increase in CO concentration of 0.9 parts per million (ppm) in the a.m. peak hour, and 1.1 ppm in the p.m. peak hour. When added to the maximum 1-hour concentration of CO (2.1 ppm) measured at the Chula Vista monitoring station in 2010 (the most recent year for which data are available at the Chula Vista monitoring station), the resultant concentration of 3.2 ppm would be approximately 6 times lower than the 1-hour CAAQS for CO of 20 ppm, and would be 11 times lower than the 1-hour NAAQS for CO of 35 ppm.

The 8-hour CO concentration can be estimated by multiplying the 1-hour concentration by a scaling factor of 0.7. Based on this analysis, the traffic at the Otay Lakes Road/Wueste Road intersection would result in a maximum 8-hour increase in CO concentration of 0.63 ppm in the a.m. peak hour, and 0.77 ppm in the p.m. peak hour. When added to the maximum 8-hour concentration of CO (1.56 ppm) measured at the Chula Vista monitoring station in 2010, the resultant concentration of 2.33 ppm would be approximately 4 times lower than the 8-hour CAAQS and NAAQS for CO of 9 ppm.

In closing, traffic at the intersection of Otay Lakes Road and Wueste Road under the Cumulative 2025 condition would not result in a CO “hot spot,” such that impacts would be less than significant. Therefore, the conclusions of the Draft EIR are unchanged.

Valorie L. Thompson, Ph.D.

[3] University of California, Davis. 1997. Transportation Project-Level Carbon Monoxide Protocol.

Attachment A

CALINE4 Model Outputs

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Otay Lakes and Wueste Road am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	0.0 PPM		
SIGTH=	10. DEGREES	TEMP=	16.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. OL EBT	*	5860	744	6010	736	* AG	885	2.8	0.0	10.0
B. OL EBR	*	5860	740	6010	732	* AG	100	2.8	0.0	10.0
C. OL EBD1	*	6010	736	6123	725	* AG	1029	2.8	0.0	10.0
D. OL EBD2	*	6123	725	6156	733	* AG	1029	2.8	0.0	10.0
E. OL WBL1	*	6156	737	6123	729	* AG	306	2.8	0.0	10.0
F. OL WBL2	*	6123	729	6010	739	* AG	306	2.8	0.0	10.0
G. OL WBT1	*	6156	741	6123	733	* AG	1227	2.8	0.0	10.0
H. OL WBT2	*	6123	733	6010	743	* AG	1227	2.8	0.0	10.0
I. OL WBD	*	6010	743	5860	748	* AG	1237	2.8	0.0	10.0
J. W NBL1	*	6103	633	6011	721	* AG	10	2.8	0.0	10.0
K. W NBL2	*	6011	721	6010	739	* AG	10	2.8	0.0	10.0
L. W NBR1	*	6106	633	6014	721	* AG	144	2.8	0.0	10.0
M. W NBR2	*	6014	721	6013	739	* AG	144	2.8	0.0	10.0
N. W SBD1	*	6007	739	6008	721	* AG	406	2.8	0.0	10.0
O. W SBD1	*	6008	721	6100	633	* AG	406	2.8	0.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Otay Lakes and Wueste Road am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	5997	728	1.8
2. R2	*	5977	729	1.8
3. R3	*	5957	730	1.8
4. R4	*	6023	730	1.8
5. R5	*	6043	728	1.8
6. R6	*	6063	726	1.8
7. R7	*	6010	748	1.8
8. R8	*	5990	749	1.8
9. R9	*	5970	750	1.8
10. R10	*	5950	751	1.8
11. R11	*	6030	748	1.8
12. R12	*	6050	746	1.8
13. R13	*	6070	744	1.8
14. R14	*	6009	708	1.8
15. R15	*	6030	688	1.8
16. R16	*	6039	708	1.8
17. R17	*	6060	688	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Otay Lakes and Wueste Road am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R1	82.	0.7	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.2
2. R2	83.	0.6	0.1	0.0	0.2	0.0	0.0	0.1	0.0	0.2
3. R3	84.	0.6	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2
4. R4	282.	0.9	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0
5. R5	283.	0.8	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0
6. R6	283.	0.9	0.1	0.0	0.4	0.0	0.0	0.1	0.0	0.1
7. R7	105.	0.9	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.6
8. R8	103.	0.9	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.3
9. R9	102.	0.9	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.2
10. R10	102.	0.9	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1
11. R11	262.	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2
12. R12	263.	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.3
13. R13	264.	0.8	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.4
14. R14	74.	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
15. R15	338.	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16. R16	291.	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17. R17	295.	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Otay Lakes and Wueste Road am
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O
1. R1	*	0.0	0.0	0.0	0.0	0.0	0.1	0.0
2. R2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. R3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. R4	*	0.3	0.0	0.0	0.0	0.0	0.0	0.0
5. R5	*	0.2	0.0	0.0	0.0	0.0	0.0	0.0
6. R6	*	0.2	0.0	0.0	0.0	0.0	0.0	0.0
7. R7	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8. R8	*	0.3	0.0	0.0	0.0	0.0	0.0	0.0
9. R9	*	0.4	0.0	0.0	0.0	0.0	0.0	0.0
10. R10	*	0.4	0.0	0.0	0.0	0.0	0.0	0.0
11. R11	*	0.3	0.0	0.0	0.0	0.0	0.0	0.0
12. R12	*	0.2	0.0	0.0	0.0	0.0	0.0	0.0
13. R13	*	0.1	0.0	0.0	0.0	0.0	0.0	0.0
14. R14	*	0.0	0.0	0.0	0.0	0.0	0.0	0.1
15. R15	*	0.0	0.0	0.0	0.0	0.0	0.0	0.1
16. R16	*	0.1	0.0	0.0	0.0	0.0	0.0	0.1
17. R17	*	0.1	0.0	0.0	0.0	0.0	0.0	0.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Otay Lakes and Wueste Road pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	0.0 PPM		
SIGTH=	10. DEGREES	TEMP=	16.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. OL EBT	*	5860	744	6010	736	* AG	1408	2.8	0.0	10.0
B. OL EBR	*	5860	740	6010	732	* AG	50	2.8	0.0	10.0
C. OL EBD1	*	6010	736	6123	725	* AG	1681	2.8	0.0	10.0
D. OL EBD2	*	6123	725	6156	733	* AG	1681	2.8	0.0	10.0
E. OL WBL1	*	6156	737	6123	729	* AG	152	2.8	0.0	10.0
F. OL WBL2	*	6123	729	6010	739	* AG	152	2.8	0.0	10.0
G. OL WBT1	*	6156	741	6123	733	* AG	986	2.8	0.0	10.0
H. OL WBT2	*	6123	733	6010	743	* AG	986	2.8	0.0	10.0
I. OL WBD	*	6010	743	5860	748	* AG	996	2.8	0.0	10.0
J. W NBL1	*	6103	633	6011	721	* AG	10	2.8	0.0	10.0
K. W NBL2	*	6011	721	6010	739	* AG	10	2.8	0.0	10.0
L. W NBR1	*	6106	633	6014	721	* AG	273	2.8	0.0	10.0
M. W NBR2	*	6014	721	6013	739	* AG	273	2.8	0.0	10.0
N. W SBD1	*	6007	739	6008	721	* AG	202	2.8	0.0	10.0
O. W SBD1	*	6008	721	6100	633	* AG	202	2.8	0.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Otay Lakes and Wueste Road pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R1	*	5997	728	1.8
2. R2	*	5977	729	1.8
3. R3	*	5957	730	1.8
4. R4	*	6023	730	1.8
5. R5	*	6043	728	1.8
6. R6	*	6063	726	1.8
7. R7	*	6010	748	1.8
8. R8	*	5990	749	1.8
9. R9	*	5970	750	1.8
10. R10	*	5950	751	1.8
11. R11	*	6030	748	1.8
12. R12	*	6050	746	1.8
13. R13	*	6070	744	1.8
14. R14	*	6009	708	1.8
15. R15	*	6030	688	1.8
16. R16	*	6039	708	1.8
17. R17	*	6060	688	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Otay Lakes and Wueste Road pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R1	82.	0.7	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.2
2. R2	83.	0.7	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.2
3. R3	83.	0.7	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.1
4. R4	281.	1.1	0.4	0.0	0.3	0.0	0.0	0.0	0.0	0.0
5. R5	282.	1.1	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.0
6. R6	283.	1.1	0.1	0.0	0.7	0.0	0.0	0.0	0.0	0.1
7. R7	105.	0.8	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.5
8. R8	104.	0.9	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.2
9. R9	103.	0.9	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1
10. R10	103.	0.8	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.1
11. R11	262.	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1
12. R12	263.	0.8	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.3
13. R13	264.	0.8	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.3
14. R14	74.	0.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1
15. R15	61.	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
16. R16	291.	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17. R17	297.	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 4

JOB: Otay Lakes and Wueste Road pm
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O
1. R1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. R2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. R3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. R4	*	0.2	0.0	0.0	0.0	0.0	0.0	0.0
5. R5	*	0.2	0.0	0.0	0.0	0.0	0.0	0.0
6. R6	*	0.1	0.0	0.0	0.0	0.0	0.0	0.0
7. R7	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8. R8	*	0.2	0.0	0.0	0.0	0.0	0.0	0.0
9. R9	*	0.3	0.0	0.0	0.0	0.0	0.0	0.0
10. R10	*	0.4	0.0	0.0	0.0	0.0	0.0	0.0
11. R11	*	0.3	0.0	0.0	0.0	0.0	0.0	0.0
12. R12	*	0.1	0.0	0.0	0.0	0.0	0.0	0.0
13. R13	*	0.1	0.0	0.0	0.0	0.0	0.0	0.0
14. R14	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15. R15	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16. R16	*	0.1	0.0	0.0	0.1	0.0	0.0	0.0
17. R17	*	0.1	0.0	0.0	0.1	0.0	0.0	0.0

Attachment RO6.5

Scientific Resources Associated
1328 Kaimalino Lane
San Diego, CA 92109

Memorandum

To:	County of San Diego	From:	Valorie Thompson
Re:	Health Risk Assessment for Construction and Operational Impacts Otay Ranch Village 13	Date:	August 29, 2019

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Purpose of this Memorandum

This Technical Memorandum addresses Comments R-6-110 through R-6-114 from the Endangered Habitats League letter dated May 28, 2019. The comments therein state that the health risk assessment in the 2015 DEIR solely included construction emissions and did not address operational sources, such as delivery trucks; and that the analysis is based on outdated health risk assessment guidance and methodologies and should instead follow the Office of Environmental Health Hazard Assessment's (OEHHA) 2015 *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2015).

In response to these comments, it is noted that the health risk assessment contained in the 2015 DEIR was based on applicable guidance at the time of its preparation. Nonetheless, and although not required to do so under CEQA Guidelines Section 15088.5(f)(2), this memorandum provides further information and analysis regarding the potential for adverse health effects related to emissions of toxic air contaminants (TACs) associated with construction and operation of the proposed Otay Ranch Resort Village Project (Proposed Project).

Toxic Air Contaminants

In 1983, the California Legislature enacted a law to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." There are approximately 192 TACs identified by the State of California (ARB 2012). Some of these TACs are groups of compounds that contain many individual substances (for example, diesel particulate matter [ARB 1998]). TACs are emitted from stationary, area, and mobile sources.

The main TAC emitted from construction equipment and on-road traffic is diesel particulate matter (DPM). DPM is comprised of carbon particles ("soot") and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Most major sources of diesel emissions, such as ships, trains and trucks, operate in and around ports, rail yards, and heavily traveled roadways. The risk from DPM represents approximately 70 percent of the known statewide cancer risk from outdoor air toxics (ARB 2019a). The exhaust from diesel-fueled engines is a complex mixture of gases, vapors, and particles, many of which are known human carcinogens.

DPM is a mixture of exhaust particles and gases emitted from the combustion of diesel fuel. The portion of DPM that includes small particulates (particulates with an aerodynamic diameter of 10 microns or less, or PM_{10}) has the greatest potential to become lodged deep within the lungs and therefore the greatest potential to result in adverse health impacts to exposed individuals. The OEHHA considers DPM to be a chronic toxicant; in other words, health effects have the potential to occur following long-term exposure to DPM. OEHHA has not established a short-term level at which exposure to DPM could result in adverse health effects (OEHHA 2012).

Long-term health effects may include respiratory effects, including aggravation of existing respiratory and cardiovascular diseases, damage to lung tissues, and reduced lung function. In addition, DPM has been classified by the State of California as a carcinogenic compound (OEHHA 2012).

As in the DEIR, and consistent with standard CEQA practice for land use development projects, this health risk assessment focuses on potential impacts from DPM.

Location of Sensitive Receptors

As discussed in the 2015 DEIR, the nearest offsite sensitive receptor is located approximately 1,700 feet northwest of the Project site. In addition, offsite receptors are located in the existing housing located west of the site.

To address the comments on the DEIR, onsite receptors were also included in this analysis. Onsite receptors were placed in a grid over the areas proposed for residential development and the school site. Further discussion of the construction phasing as it relates to onsite receptors is provided in subsequent sections of this Technical Memorandum.

Figure 1 below shows the location of the project and its boundary (see blue line), and project phasing (indicated by various development subphase areas coded with color names). Figure 2 shows the location of the onsite and offsite receptors.

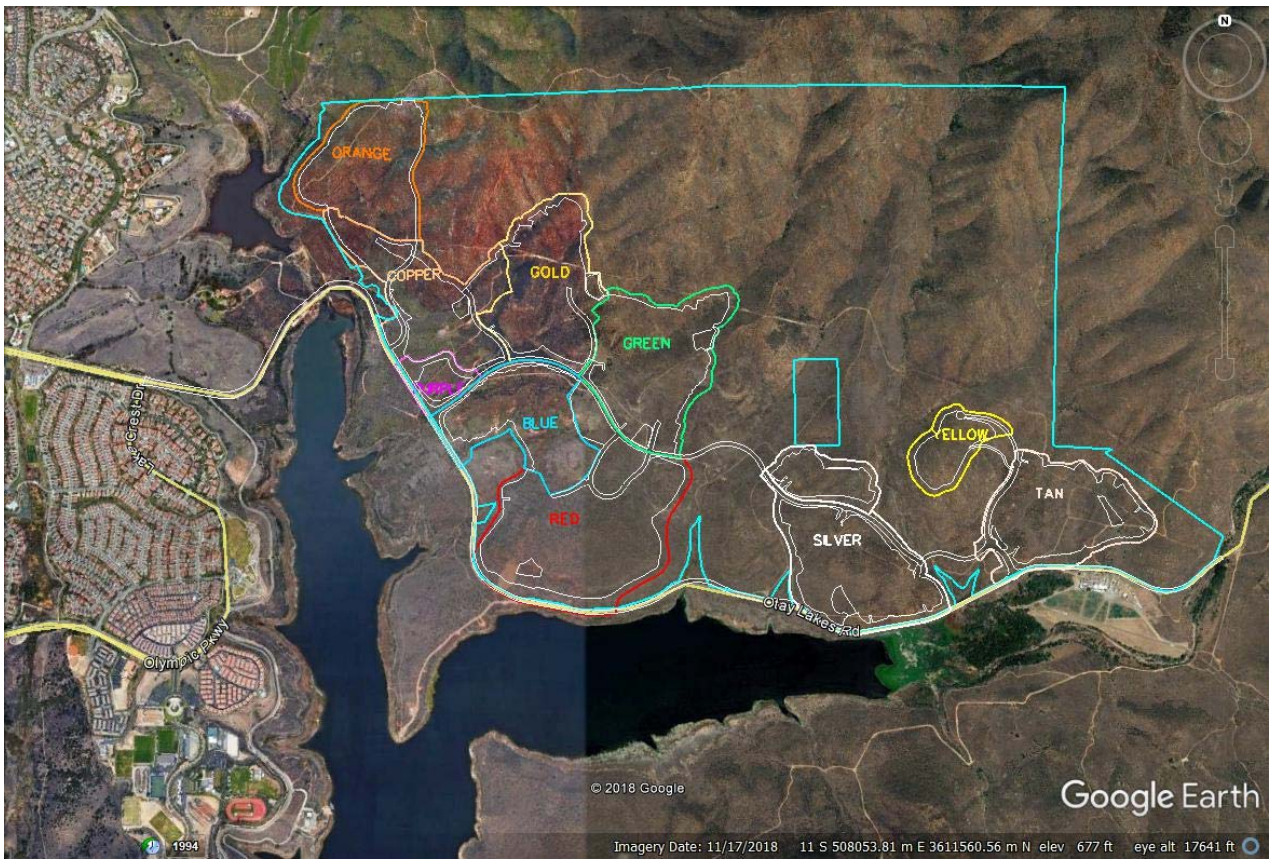


Figure 1. Site location and development areas

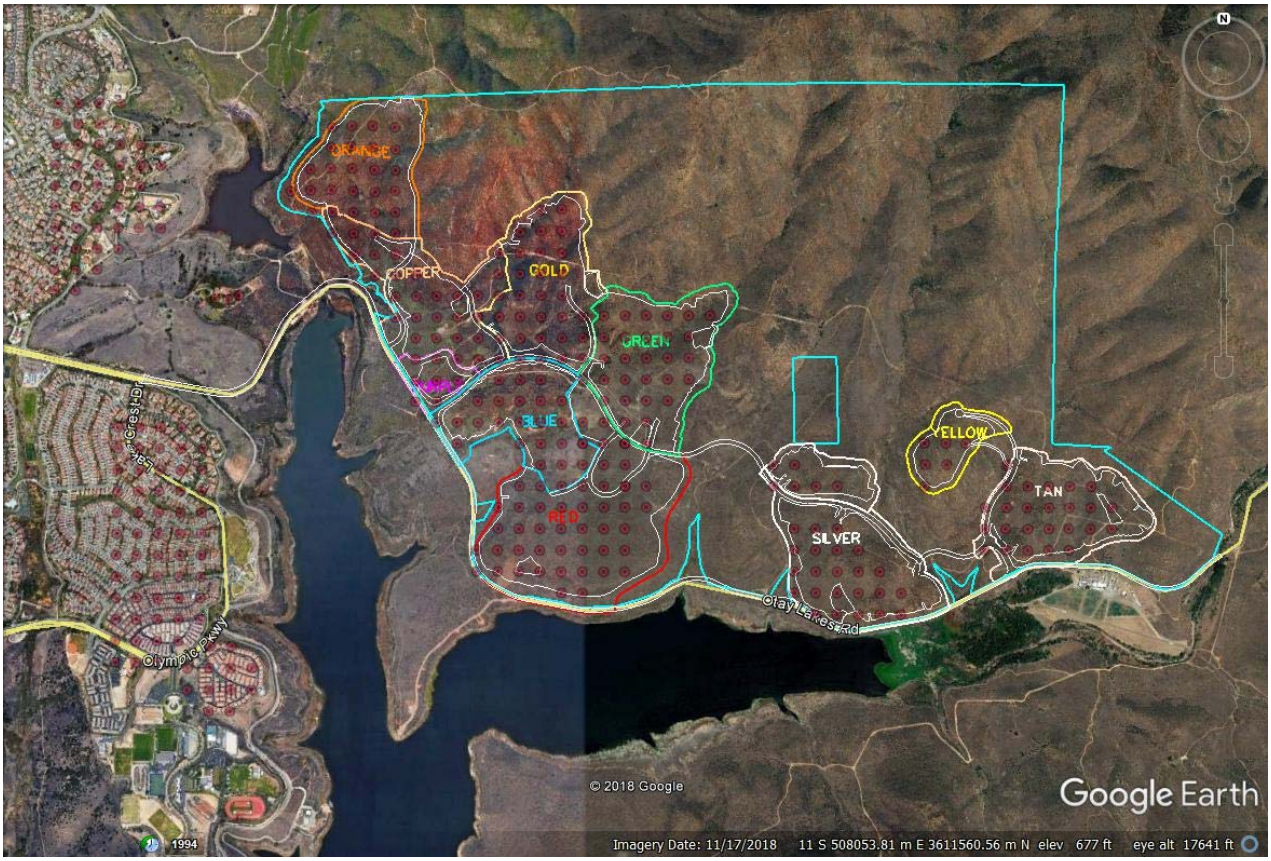


Figure 2. Site Map with Receptors

Emissions Evaluation

Within the 2015 DEIR, DPM emissions were estimated using CalEEMod Version 2013.2.2. Construction was originally estimated to commence in 2015 and be complete in 2025 (an approximate 11-year period). Given that the 2015 start date has passed, and CalEEMod has been updated twice since the 2015 DEIR was published, CalEEMod Version 2016.2.3 was run to estimate DPM emissions in the construction and operational phases of the project. For purposes of the analysis presented in this memorandum, the model was run with the same phasing parameters and duration of construction (11 years) as used in the 2015 DEIR, but with construction commencing in 2019. These model runs are consistent with the model runs conducted for the greenhouse gas analysis that was part of the 2019 Recirculated Portions of the DEIR.

Construction Emissions. CalEEMod provides outputs that differentiate PM_{10} exhaust, PM_{10} fugitive dust, and total PM_{10}. The construction PM_{10} exhaust emissions associated with heavy construction equipment and haul trucks operating at the site were summed for each year of construction. While the California Air Resources Board (ARB) states that DPM is a subset of particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) (ARB 2019a), for conservative purposes, this analysis uses

estimates of PM_{10} to characterize DPM emissions. This is conservative because $PM_{2.5}$ is a subset of PM_{10}; therefore, by using the latter PM formation, a larger quantity of PM emissions is incorporated into the analysis.

The 2015 DEIR evaluated annual emissions on the basis of the 11-year construction scenario, considering the number and type of units proposed for each year of construction. For purposes of this analysis and based on information from the Project applicant, the development plan for the Proposed Project divides construction into 10 separate areas, comprising various amounts of residential development, mixed use development, the school site, the public safety site, and the resort. In general, the Project will be developed from the northwest of the site to the southeast of the site, with the resort developed in the final phase.

To evaluate risks at offsite receptors, and because the OEHHA guidance recommends evaluating risks on the basis of a 30-year exposure duration, construction emissions were added over the duration of construction starting with the initial construction phase. The construction emissions were then divided by the 30 years of exposure to provide an estimate of average exposure for the duration of construction. Operational emissions, described below, were then added to the averaged construction emissions.

In addition to the 30-year exposure scenario, this analysis also evaluated a 9-year exposure scenario as recommended by OEHHA to account for the emissions occurring during the construction phase, and to also account for exposure of children both offsite and onsite during construction. As with the 30-year exposure scenario, construction emissions were averaged over the first 9 years of construction to evaluate potential risks to offsite receptors, as the highest emissions occur during the first 9 years of construction. Discussion of the exposure assumptions is provided in the sections that follow.

For onsite receptors, occupancy of the development was assumed to occur by area following its construction. It was conservatively assumed that each residential area would be fully occupied after its construction was complete. To account for exposure of onsite receptors to emissions from construction of subsequent phases, the construction emissions for the area that was completed were set to zero, and emissions for subsequent phases were averaged over the remaining duration of construction. To account for a 30-year exposure scenario for each area of the development as it is occupied, the averaged construction emissions were divided by 30 years. To account for a 9-year exposure scenario for each area of the development as it is occupied, the averaged construction emissions were divided by 9 years.

This study is based on the best information available regarding construction timing and phasing. It is also based on the parameters within the CalEEMod model that are used to calculate emissions of PM_{10} from heavy-duty construction equipment and

trucks, including default values regarding the construction and vehicle fleets within the San Diego region.

Operational Emissions. The main source of DPM during operations would be delivery trucks and other trucks operating within the development. To calculate emissions from operations, the total PM_{10} exhaust emissions from mobile sources were assumed to be comprised of DPM. Some minor amount of the PM_{10} exhaust emissions would actually not be generated from diesel vehicles; therefore, considering all PM10 exhaust as DPM provides a conservative estimate of exposure from operational vehicles.

CalEEMod Version 2016.3.2 utilizes the vehicle fleet mix and emission factors from the ARB's EMFAC2014 Model (ARB 2014). The vehicle fleet mix within the EMFAC2014 model is representative of the entire air basin, and includes truck traffic that is not only generated from deliveries or other routine uses within residential developments, but also is generated from industrial facilities, operations of the Port, warehousing operations, and goods movement within the air basin.

The San Joaquin Valley Air Pollution Control District (SJVAPCD) developed a vehicle fleet mix for residential developments to be used within CalEEMod (SJVAPCD 2009). That vehicle fleet mix, for 2019, indicates that heavy-heavy duty diesel trucks would comprise 0.5% of the total fleet; medium-heavy duty diesel trucks would comprise 0.7% of the total fleet, and light-heavy duty diesel trucks would comprise 0.3% of the total fleet. In contrast, CalEEMod Version 2016.3.2 uses a default vehicle fleet mix with heavy-heavy duty diesel trucks comprising 2.55% of the fleet; medium-heavy duty diesel trucks comprising 1.77% of the fleet; and light-heavy duty diesel trucks comprising 1.72% of the fleet. While it is likely that the residential fleet mix developed by the SJVAPCD would be more representative of the vehicles traveling within the Proposed Project's development areas during operations, for conservative purposes, CalEEMod Version 2016.3.2's default fleet mix was used in this health risk assessment.

Emission calculations are provided as Attachment A to this Technical Memorandum.

This study is based on the best information available regarding vehicular traffic on the main roads of the development. It is also based on the parameters within the CalEEMod model that are used to calculate emissions of PM_{10} from trucks within the vehicle fleet for the San Diego region.

Exposure of Sensitive Receptors

As discussed above, health risks were calculated on the basis of both the OEHHA-recommended 30-year exposure duration, and the alternative 9-year exposure duration that is also discussed in the OEHHA guidance manual. In accordance with

OEHHA guidance, DPM is not considered a multi-pathway pollutant (i.e., its exposure pathway is through inhalation rather than exposure to soils, water, or mother's milk).

For the inhalation pathway, the dose is calculated based on Equation 5.4.1.1 in the OEHHA guidance (OEHHA 2015):

$$Dose\ air = C_{air} x\ {BR}/{BW}\ x\ A\ x\ EF\ x\ 10^{-6}$$

Where:

Dose-air = Dose through inhalation (mg/kg/d)

Cair = Concentration in air (μg/m^3)

{BR/BW} = Daily Breathing rate normalized to body weight (L/kg bodyweight -day)

A= Inhalation absorption factor (unitless)

EF= Exposure frequency (unitless), days/365 days

10^{-6} = Micrograms to milligrams conversion, liters to cubic meters conversion

Cancer risk is then calculated based on Equation 8.2.4A in the OEHHA guidance (OEHHA 2015):

$$Risk_{inhalation-residential} = Dose_{air}\ x\ CPF\ x\ ASF\ x \frac{ED}{AT} x\ FAH$$

Where:

Risk inh-res = Residential inhalation cancer risk

Dose-air= Daily inhalation dose (mg/kg-day)

CPF= Inhalation cancer potency factor (mg/kg-day^{-1})

ASF= Age sensitivity factor for a specified age group (unitless)

ED= Exposure duration (in years) for a specified age group

AT= Averaging time for lifetime cancer risk (years)

FAH= Fraction of time spent at home (unitless)

OEHHA recommends exposure assumptions to calculate potential health risks, including adjustments to account for childhood exposure, to calculate excess cancer risks. The guidance recommends a 30-year exposure period for use as the basis for estimating cancer risk at residential receptors. Risks are calculated on the basis of the 30-year exposure period, accounting for childhood sensitivity, using the OEHHA-recommended age sensitivity factors (ASFs) to take into account the increased sensitivity to carcinogens during early-in-life exposure. In addition, high-end breathing rates recommended by OEHHA were used to provide a conservative estimate of risk. The residential exposure scenario conservatively assumes that an individual is present at the same location 24 hours per day, 350 days per year, for a 30-year period that includes childhood. Table 1 presents the exposure factors used in this analysis to evaluate potential risks from the construction and operation of the project.

Table 1 Risk Assessment Exposure Factors					
Risk Calculation Parameters	**Breathing Rate/Body Weight. L/kg-day**	**Age Sensitivity Factor**	**Exposure Duration, years**	**Averaging Time, years**	**Fraction of Time at Home**
Time Period of Exposure, years	**High End BR/BW**	**ASF**	**ED**	**AT**	**FAH**
3rd Trimester	361	10	0.25	70	0.85
0<2	1090	10	2	70	0.85
2<16	745	3	14	70	0.72
16<30	335	1	14	70	0.73

Risk Evaluation

The AERMOD air dispersion model (U.S. EPA 2018) was used to calculate ground-level concentrations at sensitive receptors located both offsite and onsite. Surface and upper air profiler meteorological data from the Chula Vista monitoring station were used in the AERMOD model.

Construction sources were represented as a grid of volume sources 50 meters by 50 meters throughout the Project site. Operational sources were placed along the main road within the Project site using a 50 meter spacing. Individual offsite receptors were identified from Google Earth satellite maps, and receptors with a 100-meter spacing were placed both in the offsite residential areas and at the onsite residential areas and school.

The risk assessment was conducted using the ARB's HARP2 model (ARB 2019b). The HARP2 model is the latest version of the ARB's approved health risk assessment model. The AERMOD model was run in accordance with HARP2 requirements, which specify that the model be set up to calculate a unit impact for each individual source. The HARP2 model uses AERMOD modeling results based on a X/Q calculation, which represents the ground-level concentration for an emission rate of 1 gram per second for each source. The HARP2 model imports the AERMOD modeling files for each source, and calculates the ground-level concentrations individually based on pollutant emission rates input into the risk assessment calculation feature within the HARP2 model. Because cancer risks drive the health risk assessment, this analysis focused on calculating cancer risk.

As discussed above, this analysis considers both offsite and onsite receptors. Risks at the offsite receptors were calculated assuming construction over the entire site, plus operational vehicles operating on site roads. Risks at the onsite receptors were calculated assuming that no additional construction occurs on a given portion of the site once that portion is complete and occupied.

Uncertainty

Uncertainties in HRAs arise from the limitations of methodologies used to estimate health risks. They are also the product of many factors affecting each component of the risk assessment process, including prediction of emission rates, air dispersion modeling, exposure assessment, and toxicity assessment. These factors generally include, at a minimum, measurement errors, conservative exposure and modeling assumptions, and uncertainty and variability of the toxicity values used in the assessment. The compounding effects of these uncertainties can be at least two orders of magnitude or more. Therefore, this section of the memorandum presents a qualitative discussion of the uncertainties, assumptions, and limitations in the HRA.

A good deal of uncertainty exists in the use of air dispersion modeling to predict ground-level concentrations of contaminants. Dispersion models, such as the AERMOD model, represent a methodology for predicting ground-level impacts but do not provide estimates of true ground-level concentrations. In addition, the algorithm in the model that is used for complex terrain is based on screening-level rather than refined assumptions to calculate ground-level concentrations. Therefore, for terrain heights above the release height of the sources, the impacts will likely be overestimated. Also in this HRA, dry and wet deposition processes were not considered in the AERMOD model. Furthermore, the AERMOD model necessarily uses meteorological data collected for past years; there is no way to predict future meteorological conditions within the model.

Exposure and toxicity assessment have been recognized by U.S. EPA as the largest sources of uncertainties in the risk assessment process. (U.S EPA 2011). The methodology used in this HRA follows the OEHHA and APCD guidelines for the preparation of an AB 2588 HRA. These guidelines require the use of extremely conservative exposure assumptions; namely, that an individual resident would remain in the same location for 30 years, 24 hours per day, 7 days per week, for 365 days per year without leaving the site.

Another source of uncertainty in estimating exposures is the assumption that individuals within a particular receptor population (or subpopulation) will receive the same intake doses. Variability in parameters such as absorption rates, breathing rates, body weight, skin surface area, and frequency of exposure will exist even in a narrowly defined age group or sensitive receptor subpopulation. This range of uncertainty and variability is difficult to assess. In this HRA, OEHHA standard default factors representing the upper limit of these exposure parameters will generally overestimate risks. Thus, the risks reported in this HRA represent an upper bound of estimated risk.

Uncertainties in this HRA are also related to the use of OEHHA-recommended toxicity values. For those toxicity values derived from human epidemiological studies, differences in the exposure durations and population types between studies and receptors considered in this HRA are also a source of uncertainty in extrapolating study

data to residential and occupational exposure frequencies and durations assumed in the HRA calculations. For example, OEHHA derived the cancer risk factor for DPM based on data from occupational exposure of railroad workers, who were exposed to DPM in a manner that is substantially different than exposure of residents (OEHHA 1998).

In closing, the methods of calculating carcinogenic risk used herein are based on OEHHA guidance and are based on a "worst-plausible" situation. The results are therefore health conservative and are designed to represent an upper limit of the health risk associated with exposure to emissions from the facility. The actual risks are not expected to be higher than the predicted risks presented in this risk assessment, and are likely to be substantially lower.

Risk Assessment Results

Table 2 presents the results of the health risk calculations. These results consider both construction and operations at the site, and both offsite and onsite receptors.

Table 2
Predicted Maximum Cancer Risks

Receptor Location	30-year Cancer Risk	9-year Cancer Risk
Maximally Exposed Offsite Receptor	0.563 in a million	1.22 in a million
Orange	2.66 in a million	6.19 in a million
Copper (Maximally Exposed Onsite Receptor)	3.58 in a million	8.74 in a million
Blue	3.52 in a million	8.59 in a million
Gold	3.34 in a million	8.13 in a million
Green	3.30 In a million	8.04 in a million
Red	0.887 in a million	2.10 in a million
Purple	0.267 in a million	0.616 in a million
Silver	0.556 in a million	1.23 in a million
Tan	0.793 in a million	1.90 in a million

As shown in Table 2, both offsite and onsite risks are below the significance threshold of 10 in a million.[1] Therefore, no new significant impact has been identified.

[1] The San Diego Air Pollution Control District's (SDAPCD) Rule 1210 (Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction), which applies to stationary sources, establishes public notification thresholds for incremental cancer and non-cancer health impacts. As stated in the SDAPCD's Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program Health Risk Assessments (SDAPCD 2019b), the SDAPCD has established public health risk notification requirements under Rule 1210, which include a maximum incremental cancer risk of 10 in a million or greater (SDAPCD 2019a).

Conclusions

TAC emissions associated with construction and operation of the proposed Project were evaluated in this health risk assessment, following the most recent OEHHA guidance. Both offsite and onsite receptors, and both construction and operational emissions were included in the analysis. Based on this evaluation, it is not likely that significant adverse health effects would result from Project TAC emissions, as cancer risk levels are below the threshold. The conclusions of the 2015 DEIR remain unchanged.

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Scientific Resources Associated
1328 Kaimalino Lane
San Diego, CA 92109

Memorandum

To:	County of San Diego	From:	Valorie Thompson
Re:	Health Risk Assessment for Construction and Operational Impacts Alternative H Otay Ranch Village 13	Date:	August 29, 2019

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Purpose of this Memorandum

A Technical Memorandum was prepared to address Comments R-6-110 through R-6-114 from the Endangered Habitats League letter dated May 28, 2019 as those comments pertain to the Otay Ranch Resort Village Project (Proposed Project) (SRA 2019). This related Technical Memorandum addresses the same comments on potential health risks, but specific to Alternative H of the Proposed Project's EIR.

As in the 2015 DEIR and the referenced Technical Memorandum for the Proposed Project, this health risk assessment focuses on potential impacts from exposure to diesel particulate matter (DPM). The approach to evaluating health risks for Alternative H is the same as that for the Proposed Project, as discussed in the referenced Technical Memorandum (SRA 2019).

Location of Sensitive Receptors

As discussed in the 2015 DEIR, the nearest offsite sensitive receptor is located approximately 1,700 feet northwest of the Project site. In addition, offsite receptors are located in the existing housing located west of the site.

To address the comments on the DEIR for Alternative H, onsite receptors were also included in this analysis. Onsite receptors were placed in a grid over the areas proposed by Alternative H for residential development and the school site. Further discussion of the construction phasing as it relates to onsite receptors is provided in subsequent sections of this Technical Memorandum.

Figure 1 below shows the location of the Project and its boundary (see green line), and project phasing (indicated by various development subphase areas coded with color names). Figure 2 shows the location of the onsite and offsite receptors.

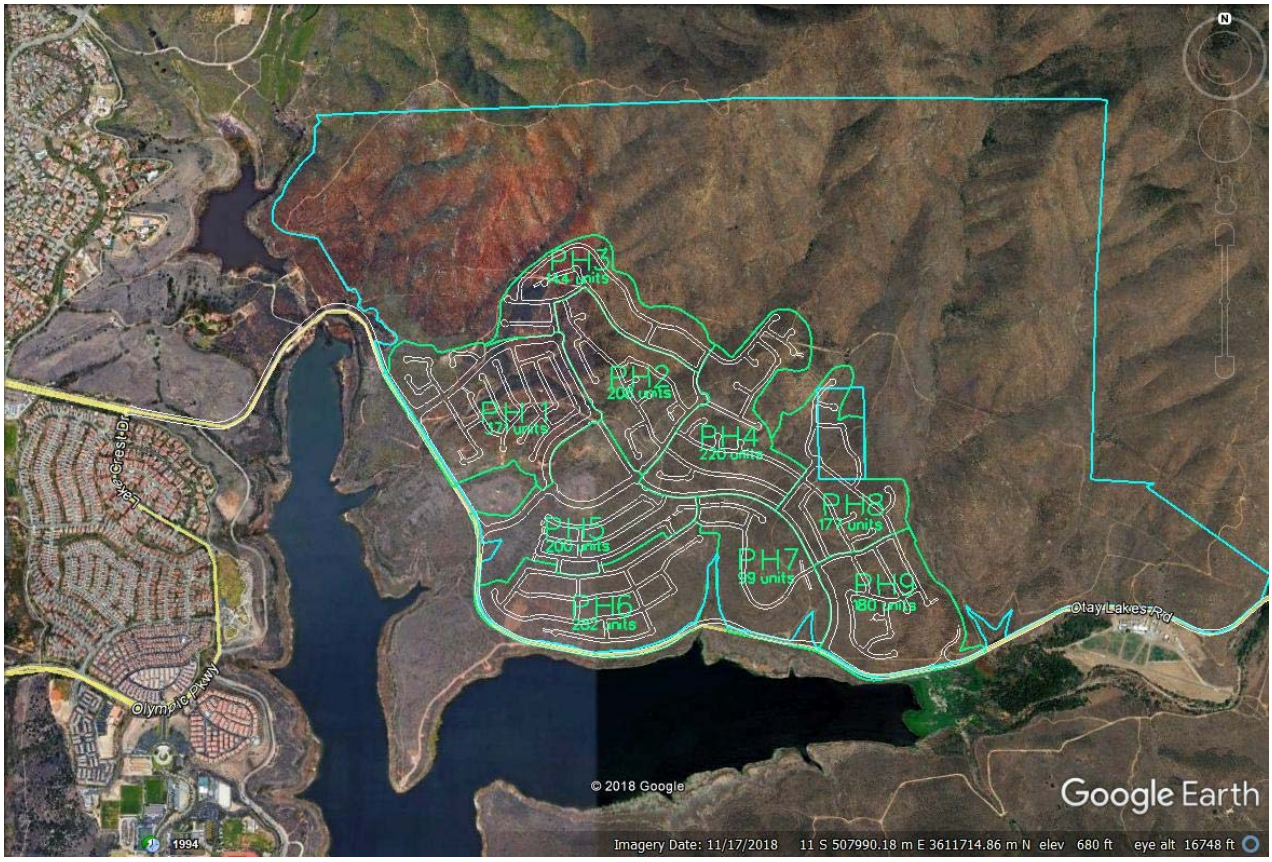

Figure 1. Alternative H site location and development areas

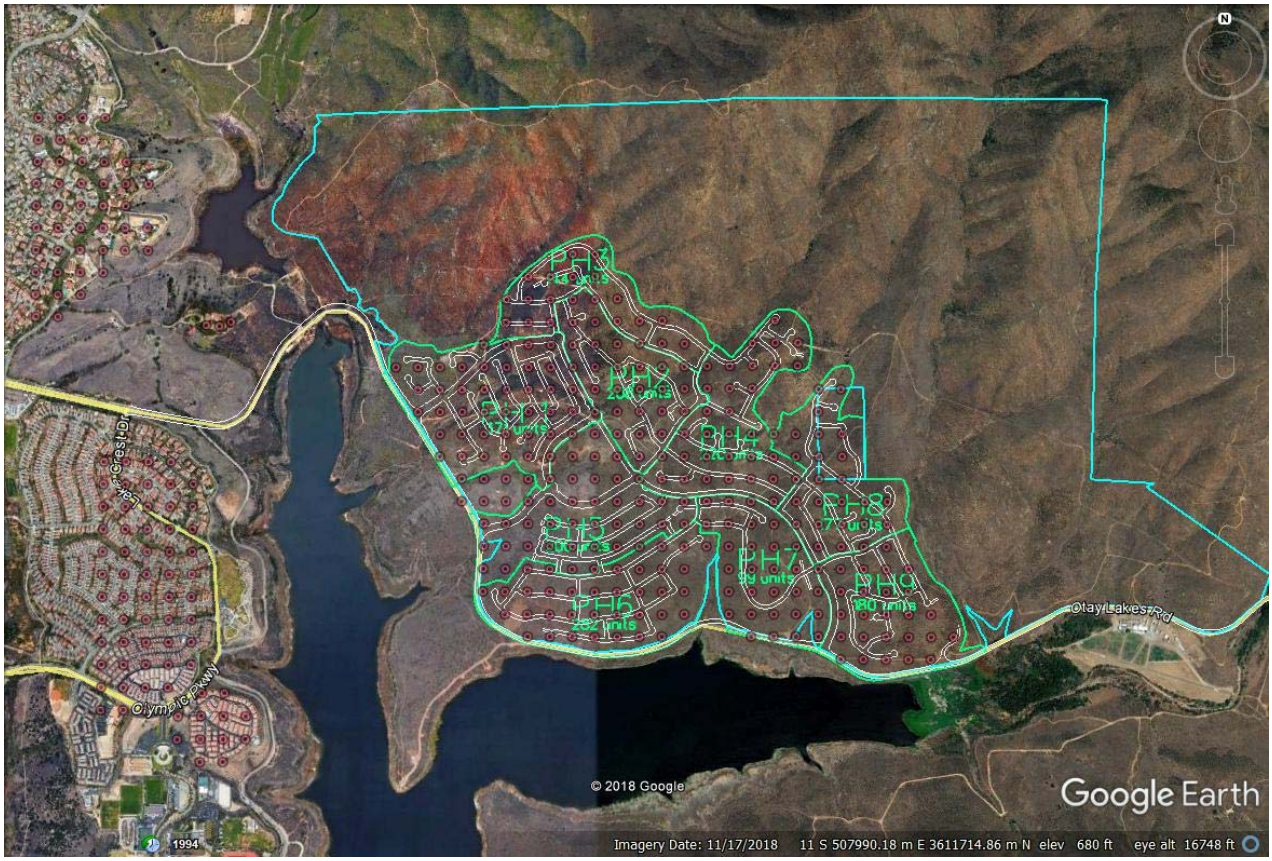

Figure 2. Site Map with Receptors

Emissions Evaluation

CalEEMod Version 2016.2.3 was run to estimate DPM emissions in the construction and operational phases of Alternative H. For Alternative H, construction would occur over a 10-year period, and was estimated to commence in 2020 and be complete in 2029. These model runs are consistent with the model runs conducted for Alternative H, as included in the 2019 Recirculated Portions of the DEIR.

Construction Emissions. As with the Project, to evaluate risks at offsite receptors, construction emissions were added over the duration of construction starting with the initial construction phase. The construction emissions were divided by the 30 years of exposure to provide an estimate of average exposure for the duration of construction. Operational emissions, described below, were then added to the averaged construction emissions.

In addition to the 30-year exposure scenario, this analysis also evaluated a 9-year exposure scenario as recommended by OEHHA to account for the emissions occurring during the construction phase, and to also account for exposure of children both offsite and onsite during construction. As with the 30-year exposure scenario,

construction emissions were averaged over the initial 9 years of construction to evaluate potential risks to offsite receptors, as the highest emissions occur during the first 9 years of construction.

For onsite receptors, occupancy of Alternative H projectwas assumed to occur by area following its construction. It was conservatively assumed that each residential area would be fully occupied after its construction was complete. To account for exposure of onsite receptors to emissions from construction of subsequent phases, the emissions for the area that was completed construction were set to zero, and emissions for subsequent phases were averaged over the remaining duration of construction. To account for a 30-year exposure scenario for each area of the development as it is occupied, the averaged construction emissions were divided by 30 years. To account for a 9-year exposure scenario for each area of the development as it is occupied, the averaged construction emissions were divided by 9 years.

This study is based on the best information available regarding construction timing and phasing. It is also based on the parameters within the CalEEMod model that are used to calculate emissions of PM_{10} from heavy-duty construction equipment and trucks, including default values regarding the construction and vehicle fleets within the San Diego region.

Operational Emissions. As for the Project, operational emissions were calculated for Alternative H using the CalEEMod Model, Version 2016.3.2. As for the Project, for conservative purposes, the CalEEMod 2016.3.2 default fleet mix was used in this health risk assessment.

Emission calculations are provided as Attachment A to this Technical Memorandum.

This study is based on the best information available regarding vehicular traffic on the main roads of the development. It is also based on the parameters within the CalEEMod model that are used to calculate emissions of PM_{10} from trucks within the vehicle fleet for the San Diego region.

Exposure of Sensitive Receptors

As discussed above, health risks were calculated on the basis of both the OEHHA-recommended 30-year exposure duration, and the alternative 9-year exposure duration that is also discussed in the OEHHA guidance manual. The exposure assumptions are the same as those used for the Project. Details on the exposure assumptions are provided in the Technical Memorandum for the Proposed Project (SRA 2019).

Risk Evaluation

The approach to evaluating risks for Alternative H is the same as that used for the Project. The risk assessment was conducted using the AERMOD air dispersion model (USEPA 2018) to calculate ground-level concentrations at sensitive receptors located both offsite and onsite of Alternative H. The risk calculations were conducted using the ARB's HARP2 model (ARB 2019b). Further details on the assumptions in the risk calculations, as well as the uncertainties therein, are provided in the technical memorandum for the Project (SRA 2019).

Risk Assessment Results

Table 1 presents the results of the health risk calculations for Alternative H, showing the risks by area in order of proposed development subphases. These results consider both construction and operations at the site, and both offsite and onsite receptors.

Table 2
Predicted Maximum Cancer Risks

Receptor Location	30-year Cancer Risk	9-year Cancer Risk
Maximally Exposed Offsite Receptor	2.69 in a million	6.00 in a million
Area 1	3.00 in a million	7.25 in a million
Area 5	3.02 in a million	7.17 in a million
Area 6	2.62 in a million	6.34 in a million
Area 3	1.65 in a million	3.97 in a million
Area 2 (Maximally Exposed Onsite Receptor)	3.09 in a million	7.43 in a million
Area 4	1.50 in a million	3.56 in a million
Area 7	1.81 in a million	4.28 in a million
Area 8	2.65 in a million	6.41 in a million
Area 9	0.144 in a million	0.335 in a million

As shown in Table 1, both offsite and onsite risks are below the significance threshold of 10 in a million. Therefore, no new significant impact has been identified.

Conclusions

TAC emissions associated with construction and operation of Alternative H were evaluated in this health risk assessment, following the most recent OEHHA guidance. Both offsite and onsite receptors, and both construction and operational emissions were included in the analysis. Based on this evaluation, significant adverse health effects would not result from Alternative H TAC emissions, as cancer risk levels are below the threshold. While both the Proposed Project and Alternative H would result in less-than-

significant cancer risk impacts attributable to DPM, the Proposed Project would result in higher cancer risk levels at on-site receptor locations, whereas Alternative H would result in higher cancer risk levels at off-site receptor locations due to the more compact development footprint of Alternative H, which would increase DPM exposure at offsite receptor locations.

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